

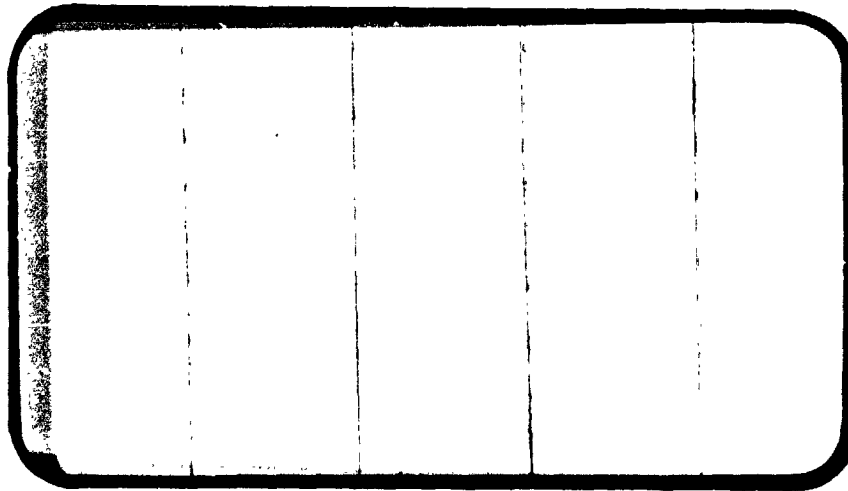


NASA

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-

134421



(NASA-CR-134421) EFFECTS OF WING/ELEVON
GAP SEALING FLAPPER DOORS ON ORBITER
ELEVON EFFECTIVENESS OF MODEL 16-0 IN
THE NAAL 7.75 BY 11 FOOT (Chrysler
Corp.) 288 p HC \$8.75

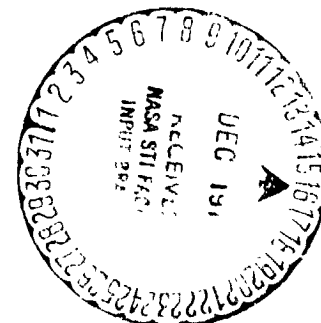
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



CHRYSLER
CORPORATION

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EFFECTS OF WING/ELEVON GAP SEALING
FLAPPER DOORS ON ORBITER ELEVON
EFFECTIVENESS OF MODEL 16-0 IN THE NAAL
7.75 X 11-FOOT CONTINUOUS FLOW WIND TUNNEL
(OA119A)

By

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Prepared under NASA Contract Number NAS9-13247

by

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for

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Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: NAAL 726
NASA Series Number: OA119A
Model Number: 16-0
Test Dates: 18 through 24 June 1974
Occupancy Hours: 45

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Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

EFFECTS OF WING/ELEVON GAP SEALING
FLAPPER DOORS ON ORBITER ELEVON
EFFECTIVENESS OF MODEL 16-0 IN THE NAAL
7.75 X 11-FOOT CONTINUOUS FLOW WIND TUNNEL (OA119A)

By

R. Mennell, Rockwell International Space Division

ABSTRACT

Experimental aerodynamic investigations were conducted on a sting-mounted 0.0405-scale representation of the 140A/B inner mold line Space Shuttle Orbiter in the Rockwell International 7.75 x 11.00 Foot Low Speed Wind Tunnel during the time period from June 18, 1974 to June 24, 1974. The NASA designation for this test period was OA119A.

The primary test objective was to define IML Orbiter elevon effectiveness with the 6" elevon/elevon and elevon/fuselage gaps and various configurations of wing/elevon upper hingeline gap sealing "flapper" doors. The elevon configuration parametric variations consisted of sealing the lower hingeline to prevent flow-through and testing a long chord flapper door, a short chord flapper door, no flapper door (elevon/wing gap upper hingeline completely open), and a completely sealed elevon at elevon deflections from $+20^\circ$ to -40° ($\delta_a = 0$).

Preliminary data analysis indicates loss of elevon effectiveness at deflections more negative than -20° (consistent with previous results) and little or no effect of flapper door configuration on elevon effectiveness. Flow visualization photographs taken at $\alpha = 15^\circ$ for two flapper door configurations substantiated the force data results.

For this test period aerodynamic force and moment data were measured in the body axis by a 2.5-inch Task type internal strain gage balance. The model was sting supported through the base region with a nominal angle-of-attack range of $-10^\circ \leq \alpha \leq 24^\circ$ at a model angle of sideslip of $\beta = 0^\circ$.

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SCHEDULE OF COEFFICIENTS PLOTTED:

(A) CLF, CN, CAF, CAB, CDF, CLM, L/DF and XCP/L versus ALPHA

CLF versus CLM

CLF versus CDF

NOMENCLATURE
General

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
Re _m /L	Re _m /L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A_b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
$\frac{l}{c}$ _{REF}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
t	total conditions
∞	total conditions
o	free stream
o	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_q	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/D _f	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Concluded)
Additions to Standard List

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
A_B		fuselage base area, ft^2
A_{BC}		balance cavity area, ft^2
C_{A_B}		fuselage base axial-force coefficient adjustment
$C_{A_{BC}}$		balance cavity axial-force coefficient adjustment
C_{A_T}		model weight tare axial-force coefficient
P_{BC}		balance cavity pressure, psia
$P_{B1}, P_{B2}, \dots, P_{B8}$		base pressure at stations 1 through 8, respectively, psia
L_B		reference body length, in.
δ_a	AILRON	aileron deflection angle, deg.
δ_{BF}	BDFLAP	bodyflap deflection angle, deg.
δ_e	ELEVON	elevon deflection angle, deg.
δ_R	RUDDER	rudder deflection angle, deg.
δ_{SB}	SPDBRK	speedbrake deflection angle, deg.
x_{cp}/L_B	XCP/L	longitudinal center of pressure location/body length
C_{L_f}	CLF	forebody lift coefficient

CONFIGURATIONS INVESTIGATED

The model provided for test period 0A119A was an 0.0405-scale representation of the 140A/B Space Shuttle Orbiter Inner Mold Line Configuration. The basic model was of the blended wing-body design utilizing a double delta wing ($75^\circ/45^\circ_{LE}$), full span, split elevons (unswept hingeline), a centerline vertical tail with rudder and/or speedbrake deflection capability, a canopy, a bodyflap, and an orbital maneuvering system (OMS) mounted on the aft fuselage sidewalls adjacent to the vertical tail.

This inner mold line configuration represents the Orbiter inner structural lines with all thermal protection systems (TPS) removed. All vehicle lines were per SD drawing VL70-000233 except as indicated (see dimensional data).

During this test period several configurations of wing/elevon upper hingeline gap sealing "flapper" doors were evaluated. The various configurations consisted of a long chord flapper door, a short chord flapper door, and no flapper door. All testing was with the lower elevon hingeline sealed to prevent flow through from the lower wing surface to the upper wing surface.

For this test period the following nomenclature was used to designate the various model components:

<u>Component</u>	<u>Description</u>
B ₆₁	140A/B Inner Mold Line Orbiter Fuselage
C ₁₁	140A/3 Canopy used on Fuselage B ₆₁

CONFIGURATIONS INVESTIGATED (Concluded)

E ₄₆	140A/B Elevon used on Wing W ₁₂₄ , 6" elevon gaps, long chord flapper door
E ₄₇	140A/B Elevon used on Wing W ₁₂₄ , 6" elevon gaps, short chord flapper door
E ₄₈	140A/B Elevon used on Wing W ₁₂₄ , 6" elevon gaps, no flapper door, upper hingeline sealed
E ₄₉	Same as E ₄₈ except upper hingeline unsealed
E ₅₀	Same as E ₄₆ except elevon lower surface leading edge has been "smoothed"
E ₅₁	Same as E ₄₉ except elevon lower surface leading edge has been "smoothed"
F ₁₂	140A/B Bodyflap used on Fuselage B ₆₁
M ₅₁	140A/B Orbital Maneuvering System used on Fuselage B ₆₁
R ₁₅	140A/B Rudder used on Vertical Tail V ₁₉
V ₁₉	140A/B Inner Mold Line Centerline Vertical Tail
W ₁₂₄	140A/B Inner Mold Line Double Delta Wing
X ₂₉	Transition grit located on Fuselage nose and all swept surfaces

TEST FACILITY DESCRIPTION

North American Aerodynamics Laboratory (NAAL) 7.75 x 11-foot Wind Tunnel is a continuous flow, closed circuit, single return tunnel capable of speeds up to 200 miles per hour.

The test section is vented to atmospheric pressure and is 7.75 x 11 feet wide and 12 feet long. Power is supplied by a 1250-horsepower nacelle-mounted synchronous motor driving a 19-foot, seven-blade, laminated birch propeller. Airspeed is controlled by using a magnetic clutch to vary the degree of coupling between the motor and propeller. Turbulence is minimized by a damping screen and a honeycomb section in the settling chamber upstream from the contraction cone (ratio 7.53 to 1).

Tests may be conducted using a variety of mounting systems: single strut, double strut, sting strut, reflection plane, cable suspension, or two-dimensional wall. Aerodynamic data may be measured by a planar type external balance system or sting-mounted internal balances. An Astrodata Automatic Data Acquisition System collects, multiplexes, digitizes, and records on magnetic tape 50 channels of force or pressure data or both. Data are then reduced and plotted using automatic data processing equipment and an automatic digital plotter.

The NAAL Wind Tunnel has been operating since June 1943. Calibrations are available over a wide range of test conditions.

DATA REDUCTION

The aerodynamic force and moment data presented were measured by the Task Corporation 2.5-inch MK IX Internal Strain Gage Balance. The data have been corrected for model base and balance chamber pressure effects, model blockage influence on tunnel dynamic pressure, wall interference effects, sting and balance deflections, and model weight tare.

The corrections made to the axial-force coefficient were accomplished in the following manner:

$$C_{A_f} = C_A - C_{A_{BC}} - C_{A_B} - C_{A_T}$$

where C_A = balance axial force coefficient

$$C_{A_{BC}} = - \left(\frac{P_{BC} - P_o}{q} \right) \left(\frac{A_{BC}}{S} \right)$$

$$C_{A_B} = - \left(\frac{P_B - P_\infty}{q} \right) \left(\frac{A_B}{S} \right), \quad P_B = 1/8 (P_{B1} + P_{B2} + \dots + P_{B8})$$

C_{A_T} = model axial force coefficient weight tare

The following reference dimensions and model constants were used for reducing all aerodynamic data to coefficient form:

<u>Symbol</u>		Full Scale	Model Scale
A_B	Area of model base, ft ² (not including A_{BC})		0.5885
A_{BC}	Area of balance cavity, ft ²		0.0985
b	Wing span, in.	936.68	37.9356

DATA REDUCTION (Concluded)

\bar{c}	Wing M.A.C., in.	474.81	19.2300
X_{MRP}	Reference MRP, in. aft of nose ($X_0 = 235$)	841.48	34.0799
	Reference MRP, fus. sta., in.	1076.48	43.5974
Z_{MRP}	Reference C.G., waterplane, in.	375.00	15.1875
L_B	Length Orbiter body, in.	1290.30	52.2572
S	Wing area, ft ²	2690.00	4.4123

TABLE I.

[illegible]

TEST: OK, 19A NAAL 726

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 6/20/74

DATA SET IDENTIFIED	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS	
		α	β	δC	δa	δb	δk	δs	δt	δu	δv	δw	δx			
AF 2001	① + E46	A	0	0	0	0	0	0	0	0	0	0	0	1	1	26
004	E46														4	
005	E47														5	
006	E45														6	
009	E42														9	
C10	Y														10	
C11	E41														11	
C12	E42														12	
C13	E46														13	
C16	E43														16	
C17	E47														17	
C18	Y														18	
C17	E42														19	
C18	E46														20	
C21	Y														21	
C14	E42														24	
C25	E41														25	
C16	Y														26	

1	7	13	19	25	31	37	43	49	55	61	67	73	79
CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB	MACH	ALPHA	Y.O.	
① B61C11M51Fiz h/124Vig K15 X29													
$\alpha(A) = -10^\circ \rightarrow 24^\circ$, $\Delta X = 2$													
α OR β													
SCHEDULES													

α OK β SCHEDULES

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

TABLE II. - Continued.

TEST: ALPHA APPA 766														DATE: 6/25/74													
DATA SET/RUN NUMBER COLLATION SUMMARY														TEST RUN NUMBERS													
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES										NO. OF RUNS	MACH NUMBERS												
		A	B	SE	CA	CT	CK	CL	CR	CS	CT	CU	CV														
REF 021	① + E43	A	0												1	26											
030	E46					-10	0									27											
031	Y					-5										30											
032	E41															31											
033	E43															32											
034	E41					5										33											
035	E43															34											
036	E46															35											
037	E41					10										36											
038	E46															37											
039	E41					0										38											
040	E49															41											
041	Y					-10										42											
042	E43					-40										43											
043	E41															44											
044	Y					-30										45											
045	Y					-20										46											
046	Y					15										47											
047	Y															48											
048	Y															49											
CL CDE CLM CN CNA CNE CPE CLP CLQ CLR CLS CLT CLU CLV CLW CLX CLY CLZ														ALPHA 1.0													
① B61C111M51F12W124V19R15X29														α(A) = -10°-24°, Δα = 2°													
α OR β														SCHEDULES													

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 73 79
 CL CDE CLM CN CAF CYN CAL CY XSP/L CAB MACH ALPHA 150

① B61C111M51F12W124V19R15X29
 $\alpha(A) = -10^\circ - 24^\circ$
 $\Delta A = 2$

SCHEDULES

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B₆₁

GENERAL DESCRIPTION : 140 A/B inner mold line orbiter fuselage.

Represents structural lines with all thermal protection systems removed.

Model Scale: 0.0405

Model Drawing: SS-A01185

DRAWING NUMBER : VL70-000233

DIMENSIONS : (Inner mold line dimensions) FULL SCALE MODEL SCALE

Length, In.	<u>1290.30</u>	<u>52.257</u>
Max Width ($X_O = 1528.3$), In.	<u>260.69</u>	<u>10.558</u>
Max Depth ($X_O = 1464.0$), In.	<u>246.91</u>	<u>10.000</u>
Fineness Ratio	<u>4.95</u>	<u>4.95</u>
Area - Ft^2	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>338.67</u>	<u>0.556</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - Continued.

MODEL COMPONENT: CANOPY - C₁₁

GENERAL DESCRIPTION: 140A/B inner mold line orbiter canopy used on fuselage B₆₁. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405 MODEL DRAWING: SS-A01185

DRAWING NUMBER VL70-000233

<u>DIMENSION: (Inner mold line dimensions)</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ($X_0=434.64$ to 578.00)(Fwd Blkhd)	<u>206.67</u>	<u>8.37</u>
Max Width ($X_0 = 513.13$ (Fwd Blkhd)), In.	<u>210.86</u>	<u>8.54</u>
Max Depth ($X_0 = 485.00$), In.	<u>25.00</u>	<u>1.013</u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - Continued.

MODEL COMPONENT: ELEVON - E₁₆

GENERAL DESCRIPTION: 140 A/B inner mold line orbiter elevon. Unswept hingeline, dual panel, 6" elevon/elevon and elevon/wing gaps, and long chord flapper door. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405MODEL DRAWING: SS-A01186DRAWING NUMBER:VL70-000233

<u>DIMENSIONS:</u> (Data for 1 of 2 sides)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>210.00</u>	<u>0.344</u>
Span (equivalent), In.	<u>349.20</u>	<u>14.143</u>
Inb'd equivalent chord, In.	<u>118.00</u>	<u>4.779</u>
Outb'd equivalent chord, In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line), Ft ³	<u>1587.25</u>	<u>0.1054</u>

TABLE III. - Continued.

MODEL COMPONENT: ELEVON E47

GENERAL DESCRIPTION: 140A/B inner mold line orbiter elevon. Unswept hingeline, dual panel, 6" elevon/elevon and elevon/wing gaps, and short chord flapper door used to seal wing/elevon gap. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405 MODEL DRAWING: SS-A01185DRAWING NUMBER: VL70-000233

<u>DIMENSIONS:</u> (Data for 1 of 2 sides)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft^2	<u>210.00</u>	<u>0.344</u>
Span (equivalent), In.	<u>349.20</u>	<u>14.143</u>
Inb'd equivalent chord, In.	<u>118.00</u>	<u>4.779</u>
Outb'd equivalent chord, In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line), Ft^3	<u>1587.25</u>	<u>0.1054</u>

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR.

TABLE III. - Continued.

MODEL COMPONENT: ELEVON - E₁₈

GENERAL DESCRIPTION: 140A/B inner mold line orbiter elevon. Unswept hingeline, dual panel, 6" elevon/elevon and elevon/wing gaps with no flapper door. Upper elevon hingeline is sealed flush to wing surface. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405MODEL DRAWING: SS-A01185DRAWING NUMBER: VL7G-000233

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>210.00</u>	<u>0.344</u>
Span (equivalent) , In.	<u>349.20</u>	<u>14.143</u>
Inb'd equivalent chord , In.	<u>118.00</u>	<u>4.779</u>
Outb'd equivalent chord , In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line) Ft ³	<u>1587.25</u>	<u>0.1054</u>

TABLE III. - Continued.

MODEL COMPONENT: ELEVON E₄₉

GENERAL DESCRIPTION: 140A/B inner mold line orbiter elevon. Unswept hingeline, dual panel, and 6" elevon/elevon and elevon/wing gaps. Upper elevon hingeline is unsealed and no flapper door is used. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405MODEL DRAWING: SS-A01185DRAWING NUMBER: VL70-000233

<u>DIMENSIONS:</u> (Data for 1 of 2 sides)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>210.00</u>	<u>0.344</u>
Span (equivalent), In.	<u>349.20</u>	<u>14.143</u>
Inb'd equivalent chord, In.	<u>118.00</u>	<u>4.779</u>
Outb'd equivalent chord, In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line), Ft ³	<u>1587.25</u>	<u>0.1054</u>

TABLE III. - Continued.

MODEL COMPONENT: ELEVON - E₅₀

GENERAL DESCRIPTION: 140A/B inner mold line orbiter elevon. Unswept hingeline, dual panel, 6" elevon/elevon and elevon/wing gaps and long chord flapper door, and lower elevon hingeline has been smoothed to prevent any discontinuity in the lower wing contour at large negative elevon deflections. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405MODEL DRAWING: SS-A01185DRAWING NUMBER: VL70-000233

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>210.00</u>	<u>0.344</u>
Span (equivalent), In.	<u>349.20</u>	<u>14.143</u>
Inb'd equivalent chord, In.	<u>118.00</u>	<u>4.779</u>
Outb'd equivalent chord, In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>-10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line), Ft ³	<u>1587.25</u>	<u>0.1054</u>

TABLE III. - Continued.

MODEL COMPONENT: ELEVON - E₅₁

GENERAL DESCRIPTION: 140A/B inner mold line orbiter elevon. Unswept hingeline, dual panel, 6" elevon/elevon and elevon/wing gaps and no flapper door used. Upper elevon hingeline is unsealed; and lower elevon hingeline has been smoothed to prevent any discontinuity in the lower wing contour at large negative elevon deflections. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405MODEL DRAWING: SS A01185

DRAWING NUMBER:

VL70-000233DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>210.00</u>	<u>0.344</u>
Span (equivalent), In.	<u>349.20</u>	<u>14.143</u>
Inb'd equivalent chord, In.	<u>118.00</u>	<u>4.779</u>
Outb'd equivalent chord, In.	<u>55.19</u>	<u>2.235</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.210</u>	<u>0.210</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.056</u>	<u>-10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line), Ft ³	<u>1587.25</u>	<u>3.1054</u>

TABLE III. - Continued.

MODEL COMPONENT: BODY FLAP F₁₂

GENERAL DESCRIPTION: 140A/B inner mold line orbiter body flap used on fuselage B₆₁. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405

MODEL DRAWING: SS-A01185

DRAWING NUMBER

VL70-000233

<u>DIMENSION:</u> (Inner mold line dimensions)	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length, In.	<u>81.00</u>	<u>3.280</u>
Max Width, In.	<u>260.00</u>	<u>10.530</u>
Max Depth, In.	<u>21.20</u>	<u>0.859</u>
Fineness Ratio	<u> </u>	<u> </u>
Area - Ft ²	<u> </u>	<u> </u>
Max Cross-Sectional	<u> </u>	<u> </u>
Planform	<u>135.00</u>	<u>0.2214</u>
Wetted	<u> </u>	<u> </u>
Base	<u>41.90</u>	<u>0.069</u>

TABLE III. - Continued.

MODEL COMPONENT: ORBITAL MANEUVERING SYSTEM - M₅₁

GENERAL DESCRIPTION: 140A/B inner mold line OMS pods used on fuselage B₆₁.
Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405 MODEL DRAWING NO.: SS-A01185

DRAWING NUMBER VL70-000233

<u>DIMENSION:</u> (Inner mold line dimensions)	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length (Fwd Sta @ $X_0 = 1207.00$), In.	<u>304.00</u>	<u>12.312</u>
Max Width ($X_0 = 1450.00$), In.	<u>94.50</u>	<u>3.827</u>
Max Depth	<u>109.00</u>	<u>4.415</u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u>19.48</u>	<u>0.032</u>

TABLE III. - Continued.

MODEL COMPONENT: RUDDER - R₁₅

GENERAL DESCRIPTION: 140A/B inner mold line rudder used on vertical tail

V₁₉. Represents structural lines with all thermal protection systems removed.

MODEL SCALE: 0.0405

MODEL DRAWING: SS-A01185

DRAWING NUMBER:

VL77-000233

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>100.15</u>	<u>4.056</u>
Span (equivalent), In.	<u>201.00</u>	<u>8.141</u>
Inb'd equivalent chord , In.	<u>91.59</u>	<u>3.709</u>
Outb'd equivalent chord , In.	<u>50.83</u>	<u>2.059</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.830</u>	<u>34.830</u>
Tailing Edge	<u>26.250</u>	<u>26.250</u>
Hingeline	<u>34.830</u>	<u>34.830</u>
Area Moment (Normal to hinge line), Ft ³	<u>610.92</u>	<u>0.0406</u>

TABLE III. - Continued.

MODEL COMPONENT: VERTICAL - V₁₉GENERAL DESCRIPTION: 140A/B inner mold line centerline vertical tailRepresents structural lines with all thermal protection systems removedMODEL SCALE: 0.0405 MODEL DRAWING: SS-A01187MODEL SCALE: 0.0405DRAWING NUMBER: VL70-000233

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - Ft ²		
Planform	<u>413.25</u>	<u>0.678</u>
Span (Theo) - In.	<u>315.72</u>	<u>12.787</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.200</u>	<u>26.200</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>10.874</u>
Tip (Theo) WP	<u>108.47</u>	<u>4.393</u>
MAC	<u>199.81</u>	<u>8.092</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>59.272</u>
W.P. of .25 MAC	<u>635.52</u>	<u>25.738</u>
B.L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.000</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.000</u>	<u>2.000</u>
Void Area	<u>13.17</u>	<u>0.022</u>
Blanketed Area	<u>0.00</u>	<u>0.00</u>

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TABLE III. - Continued.

MODEL COMPONENT: WING-W₁₂₄
 GENERAL DESCRIPTION: 140A/B inner mold line orbiter double delta wing. Represents structural lines with all thermal protection systems removed

MODEL SCALE: 0.0405 MODEL DRAWING NO.: SS-A01186

TEST NO. _____ DWG. NO. VI70-000233

DIMENSIONS: FULL-SCALE MODEL SCALE

TOTAL DATAArea (Theo.) Ft²

Planform

Span (Theo) In.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Theo) B.P.O.O.

Tip, (Theo) B.P.

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

EXPOSED DATAArea (Theo) Ft²

Span, (Theo) In. BP108

Aspect Ratio

Taper Ratio

Chords

Root BP108

Tip 1.00 $\frac{b}{2}$

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root $\frac{b}{2}$ =Tip $\frac{b}{2}$ =

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area Ft²

Leading Edge Intersects Fus M. L. @ Sta

Leading Edge Intersects Wing @ Sta

TABLE III. - Concluded.

MODEL COMPONENT: TRANSITION GRIT - X₂₉

GENERAL DESCRIPTION: Grit composed of glass beads located aft of model nose wing and vertical tail to provide forced boundary layer transition.

Dimensions are in the streamwise direction aft of the local leading edge.

MODEL SCALE: 0.0405

DRAWING NO.: None

DIMENSIONS:

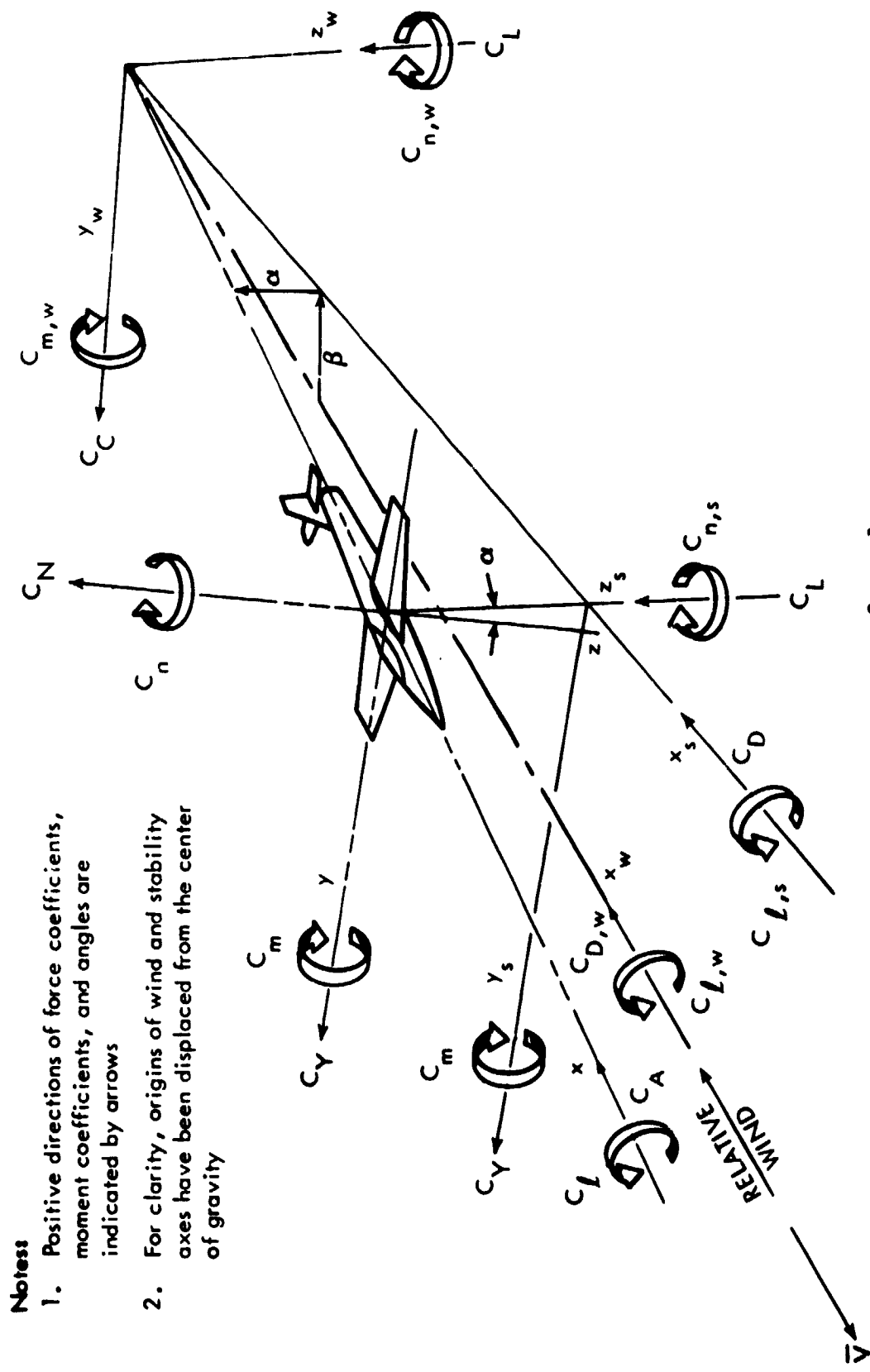
Grit diameter - In.

Fuselage	0.0054
----------	--------

Swept surfaces	0.0076
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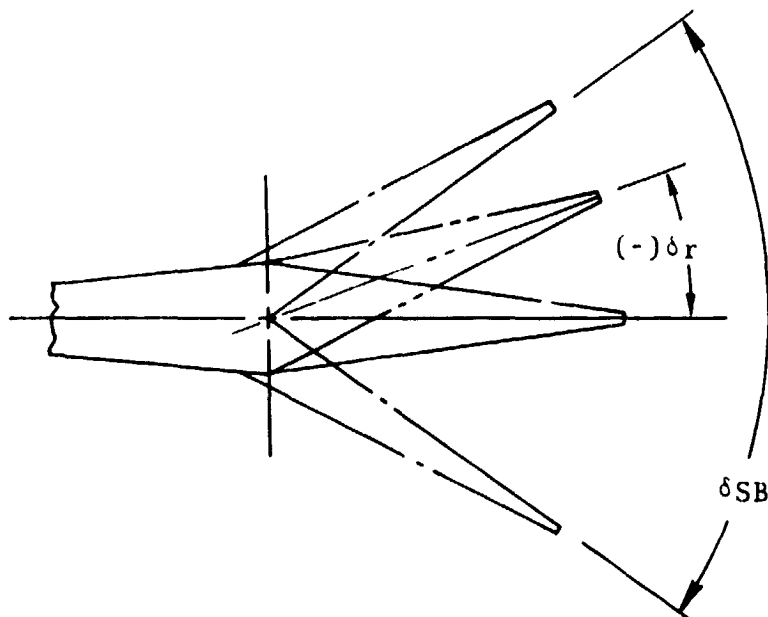
Strip width - In.	0.10
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Location aft of leading edge - In.	1.00
------------------------------------	------

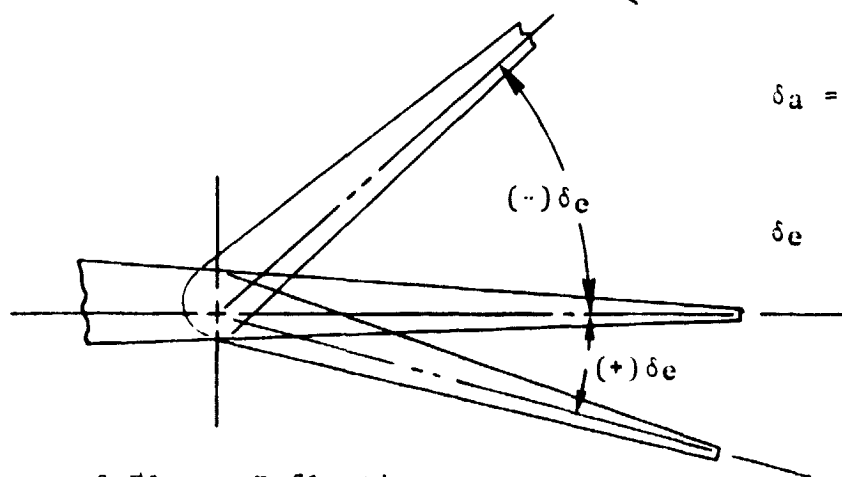


- Notes**
1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
 2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

a. General
Figure 1. - Axis systems.



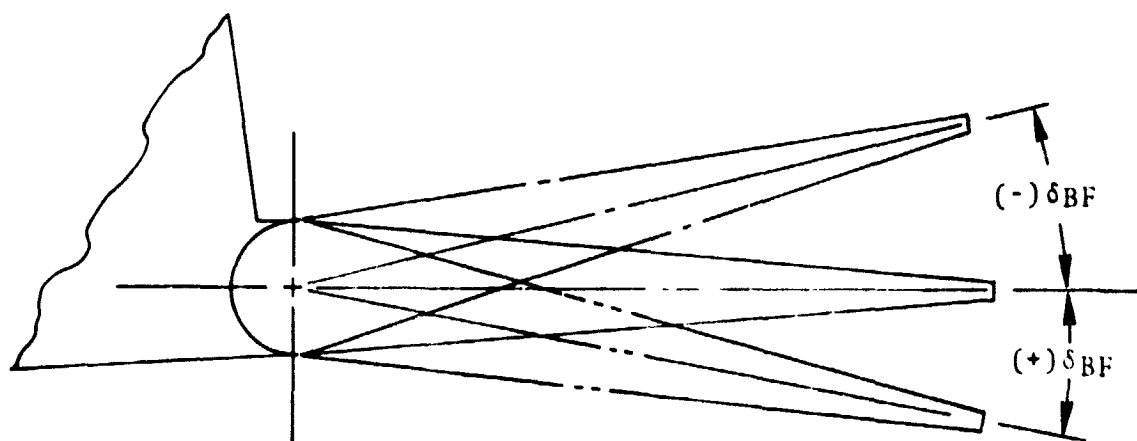
Rudder and
Speed Brake
Deflections



$$\delta_a = \frac{\delta e_L - \delta e_R}{2}$$

$$\delta_e = \frac{\delta e_L + \delta e_R}{2}$$

Aileron & Elevon Deflections



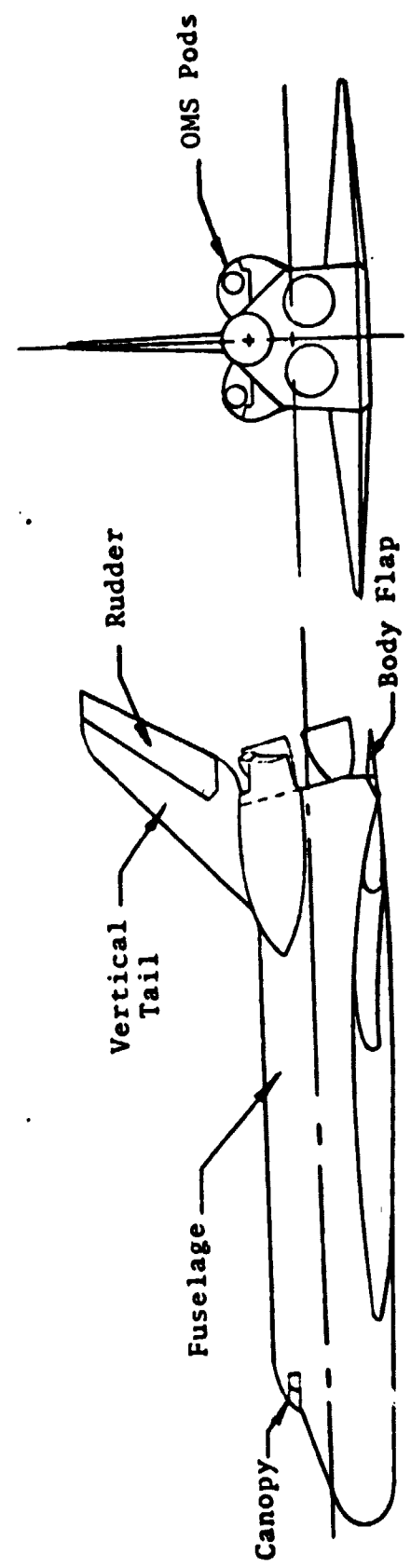
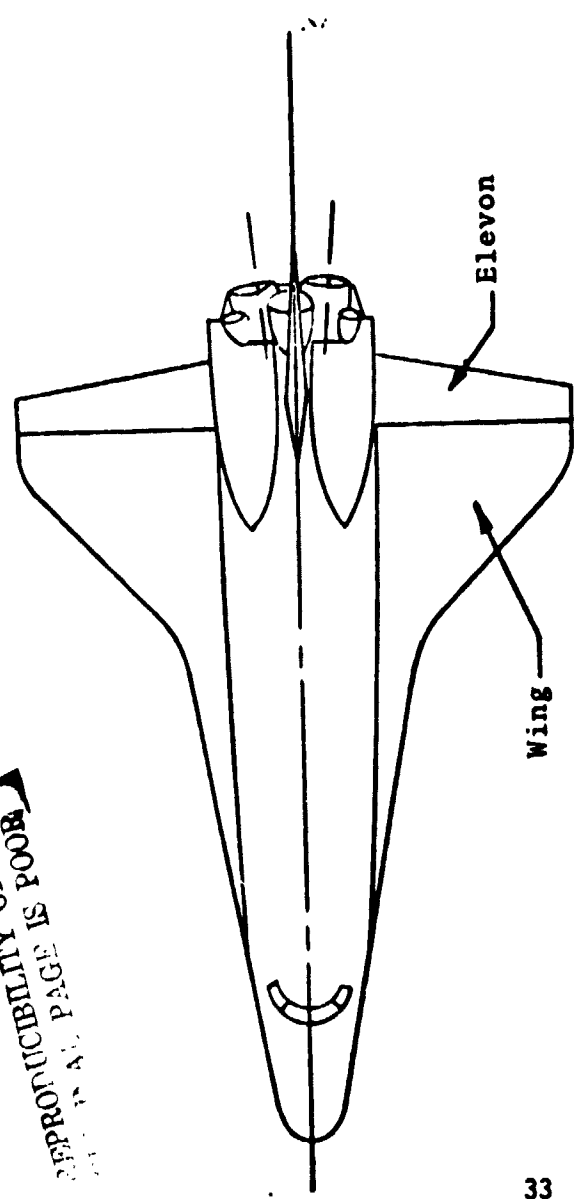
Body Flap Deflections

b. Sign Convention for Control Surfaces

Figure 1. - Concluded.

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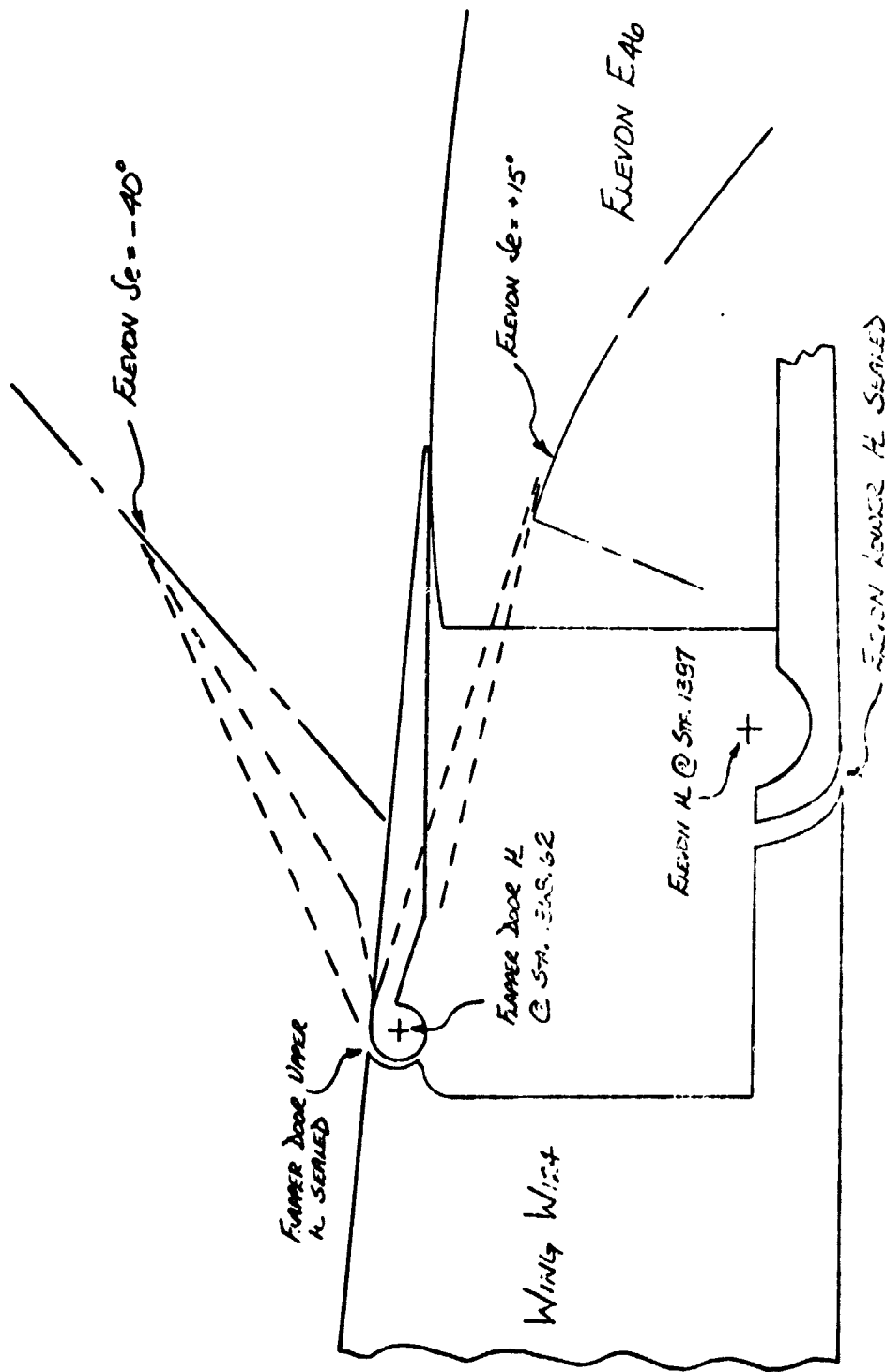
Reference	Dimension
Area	Sw = 2690 ft ²
MAC	Cw = 474.8 in
C.G.	X = 1076.48 in
	Z = 375.0 in
Span	bw = 936.68 in
Length	L = 1290.3 in



a. General Arrangement - 140 Orbiter

Figure 2. - Model sketches.

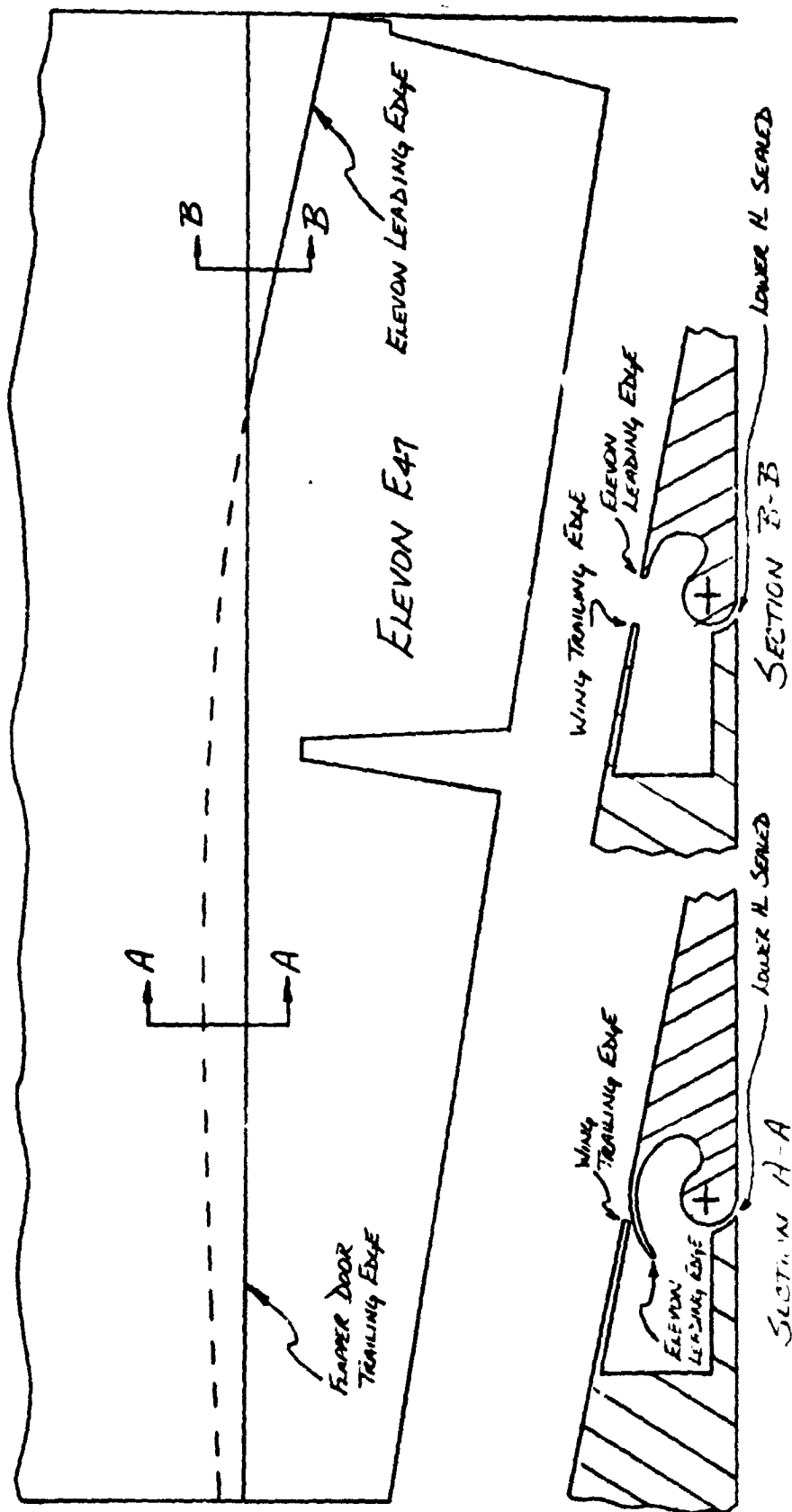
NOT TO SCALE



b. Long Flapper Door Configuration E46

Figure 2. - Continued.

NOT TO SCALE

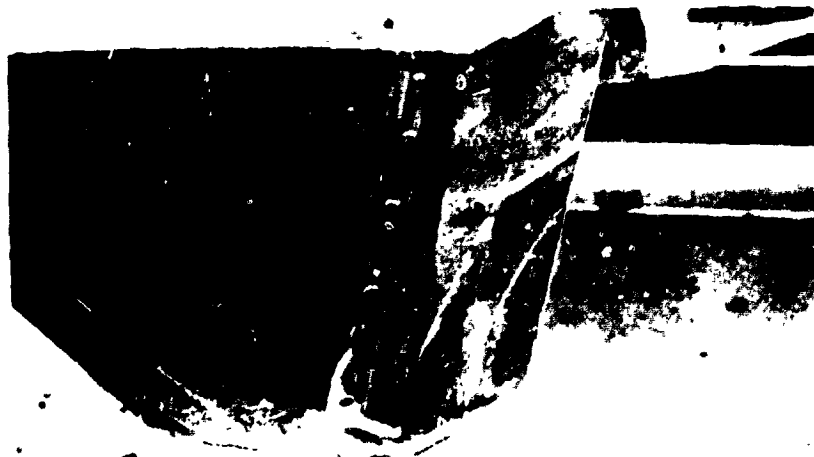


c. Short Flapper Door Configuration E47

Figure 2. - Concluded.

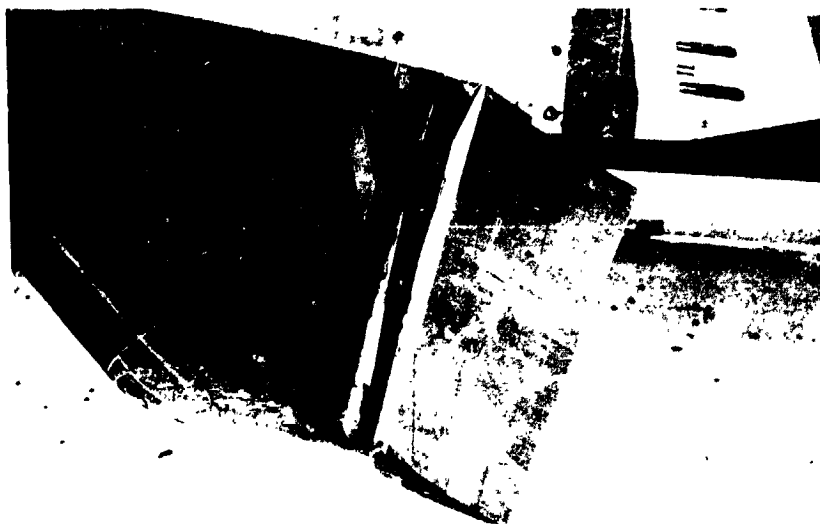


a. Rear View, NAAL Installation Configuration B₆₁ C₁₁ M₅₁ F₁₂ W₁₂₄ E₄₆
V₁₉ R₁₅ X₂₉



b. Side View, Left Wing, Short Flapper Door Conf. / ion E₄₇

Figure 3. - Model photographs.



c. Side View, Left Wing, Elevon/Wing Gap Open Configuration E₄₉

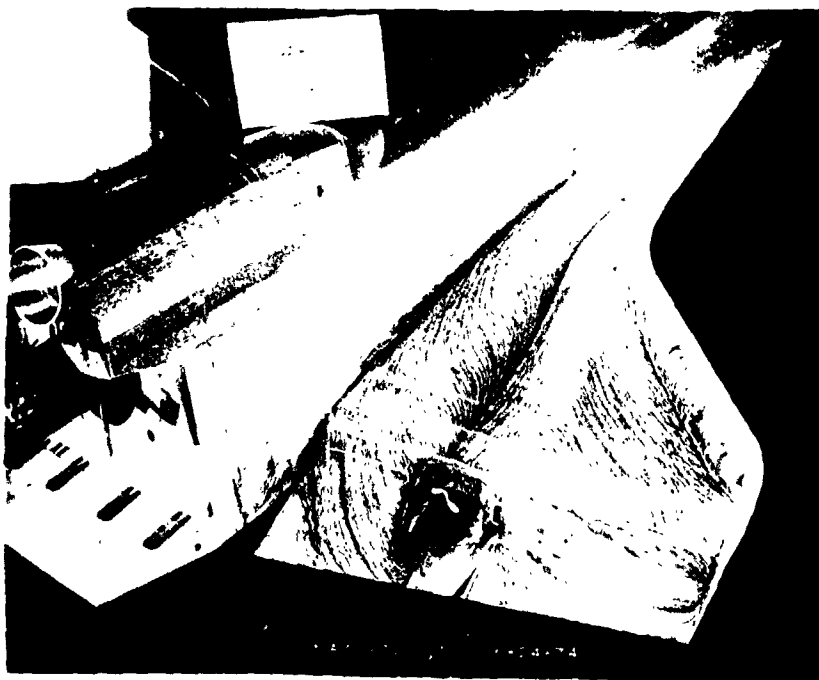


d. Side View, Left Wing, Long Flapper Door Configuration E₄₆

Figure 3. - Continued.



e. Rear View, Right Wing, Flow Visualization of Elevon/Wing Gap Open Configuration E51



f. Rear View, Right Wing, Flow Visualization of Completely Sealed Configuration E48

Figure 3. - Concluded.

DATA FIGURES

SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDF LAP	SPOBRK	ALLRON	REFERENCE INFORMATION
(AF8059)	0A119A 861C11F 2451V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8061)	0A119A 861C11F 2451V124E46V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8038)	0A119A 861C11F 2451V124E46V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8036)	0A119A 861C11F 2451V124E46V19R15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8001)	0A119A 861C11F 2451V124E46V19R15X29	-5.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8031)	0A119A 861C11F 2451V124E46V19R15X29		.000	25.000	.000	ZMRP 375.0000 INCHES
					SCALE	.0405 SCALE

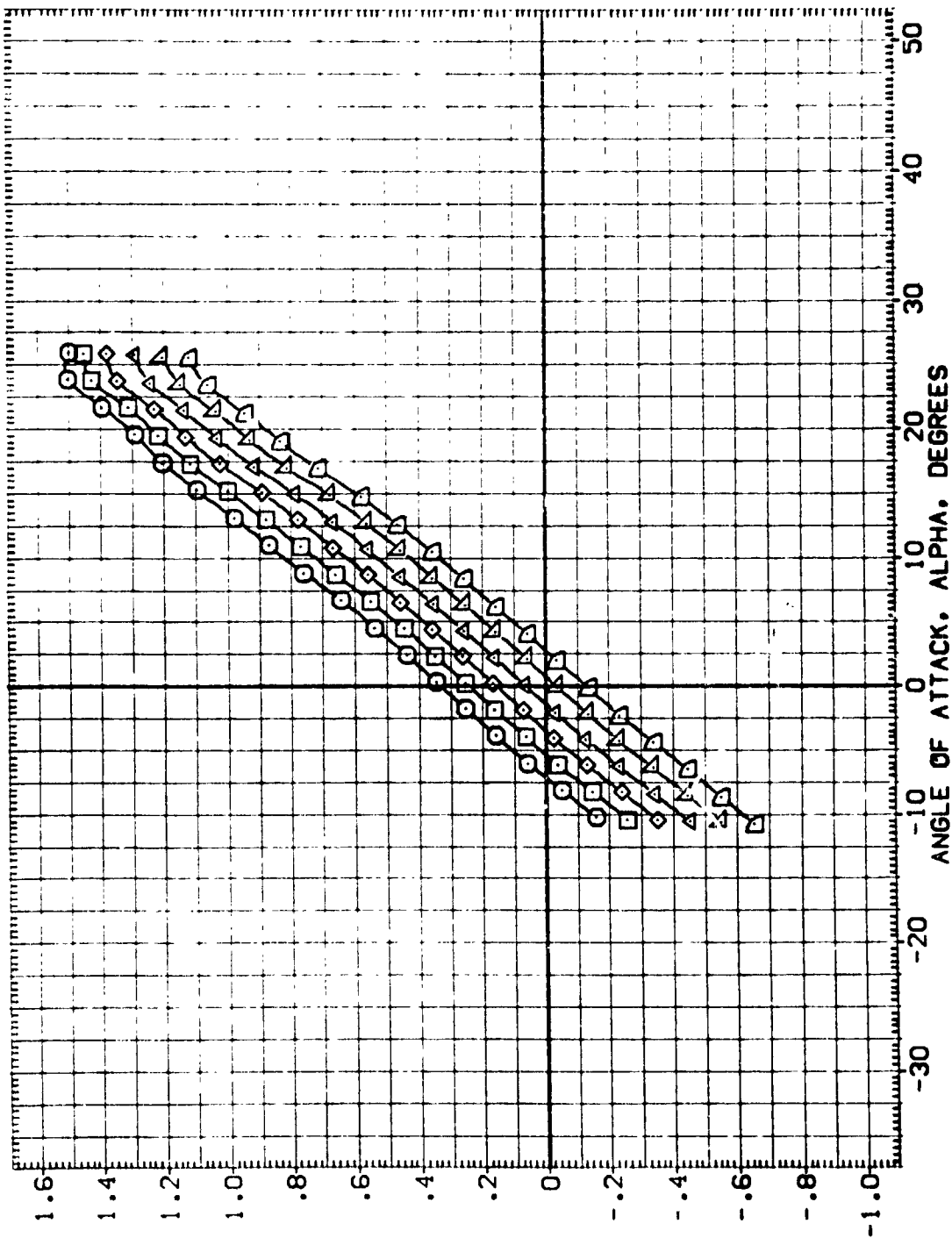


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
(AF8036)	0A119A 861C1F12P51V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2650.0100 SQ.FT.
(AF8051)	0A119A 861C1F12P51V124E46V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8038)	0A119A 861C1F12P51V124E46V19R15X29	10.000	.000	25.000	.000	BREF 936.6900 INCHES
(AF8036)	0A119A 861C1F12P51V124E46V19R15X29	5.000	.000	25.000	.000	XREF 1076.4800 INCHES
(AF8001)	0A119A 861C1F12P51V124E46V19R15X29	.000	.000	25.000	.000	YREF 375.0000 INCHES
(AF8031)	0A119A 861C1F12P51V124E46V19R15X29	-5.000	.000	25.000	.000	ZREF .0405 SCALE

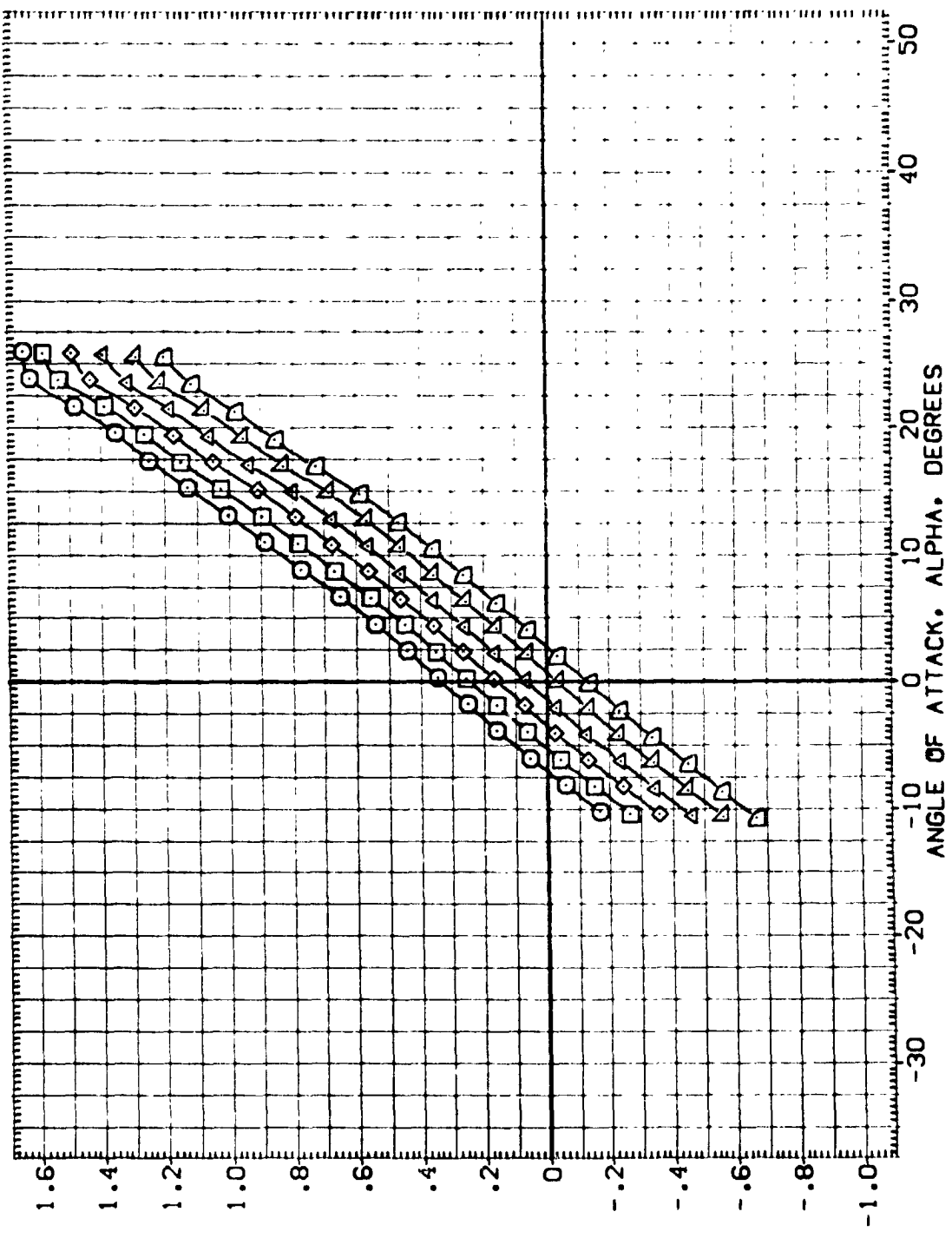


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AIRLON	REFERENCE INFORMATION
(AF8038)	DA119A B61C11F1251V124E16V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8031)	DA119A B61C11F1251V124E16V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8038)	DA119A B61C11F1251V124E16V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8036)	DA119A B61C11F1251V124E16V19R15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8001)	DA119A B61C11F1251V124E16V19R15X29	.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8031)	DA119A B61C11F1251V124E16V19R15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

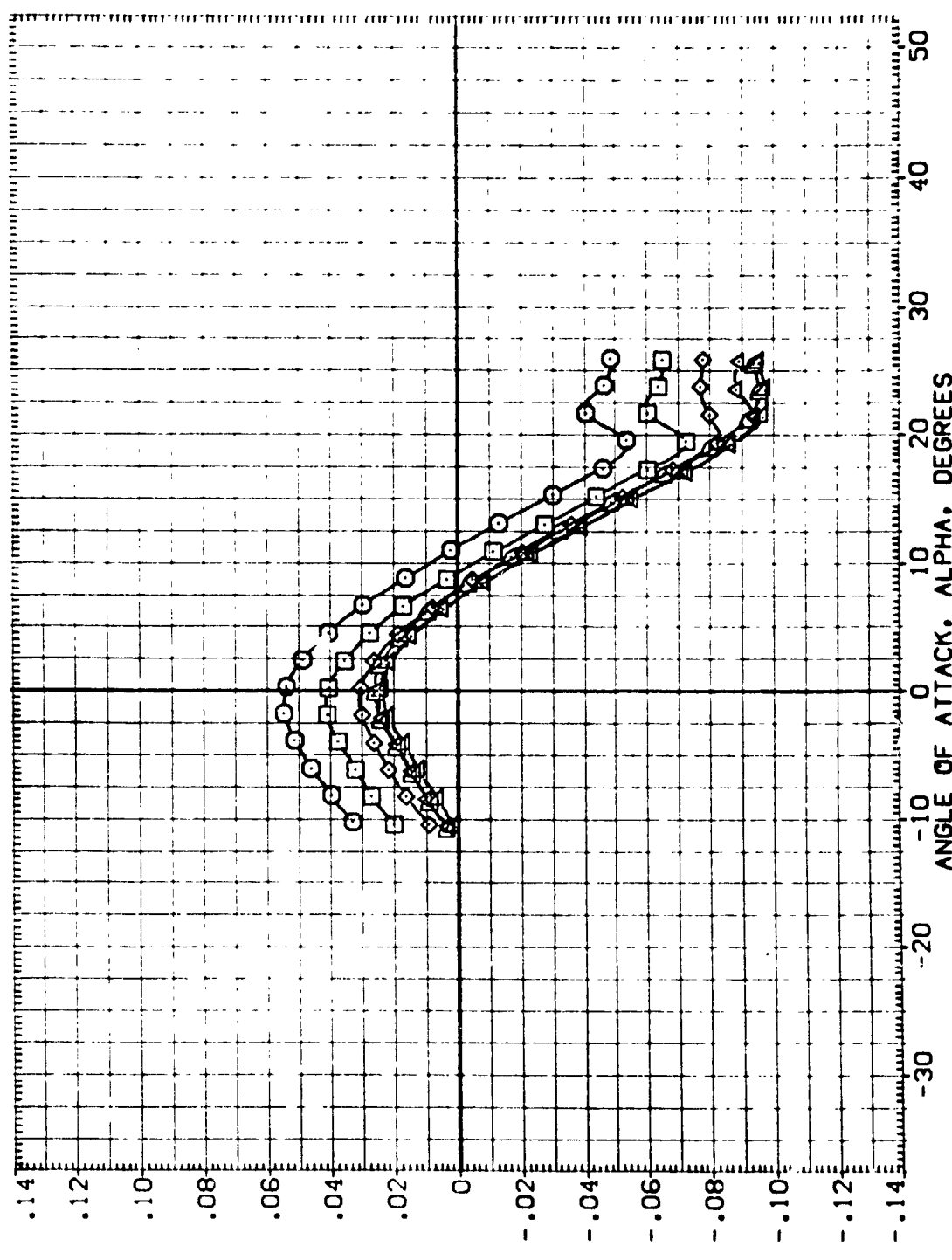


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDFLAP	SPDRK	AIRLON	REFERENCE INFORMATION
(AF8038)	0A119A B61C11F12761V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8038)	0A119A B61C11F12761V124E46V19R15X29	15.000	.000	25.000	.000	LREF 174.8100 INCHES
(AF8038)	0A119A B61C11F12761V124E46V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8038)	0A119A B61C11F12761V124E46V19R15X29	5.000	.000	25.000	.000	YMRP 1076.4800 INCHES
(AF8038)	0A119A B61C11F12761V124E46V19R15X29	.000	.000	25.000	.000	ZMRP .0000 INCHES
(AF8038)	0A119A B61C11F12761V124E46V19R15X29	-5.000	.000	25.000	.000	SCALE .0405 INCHES

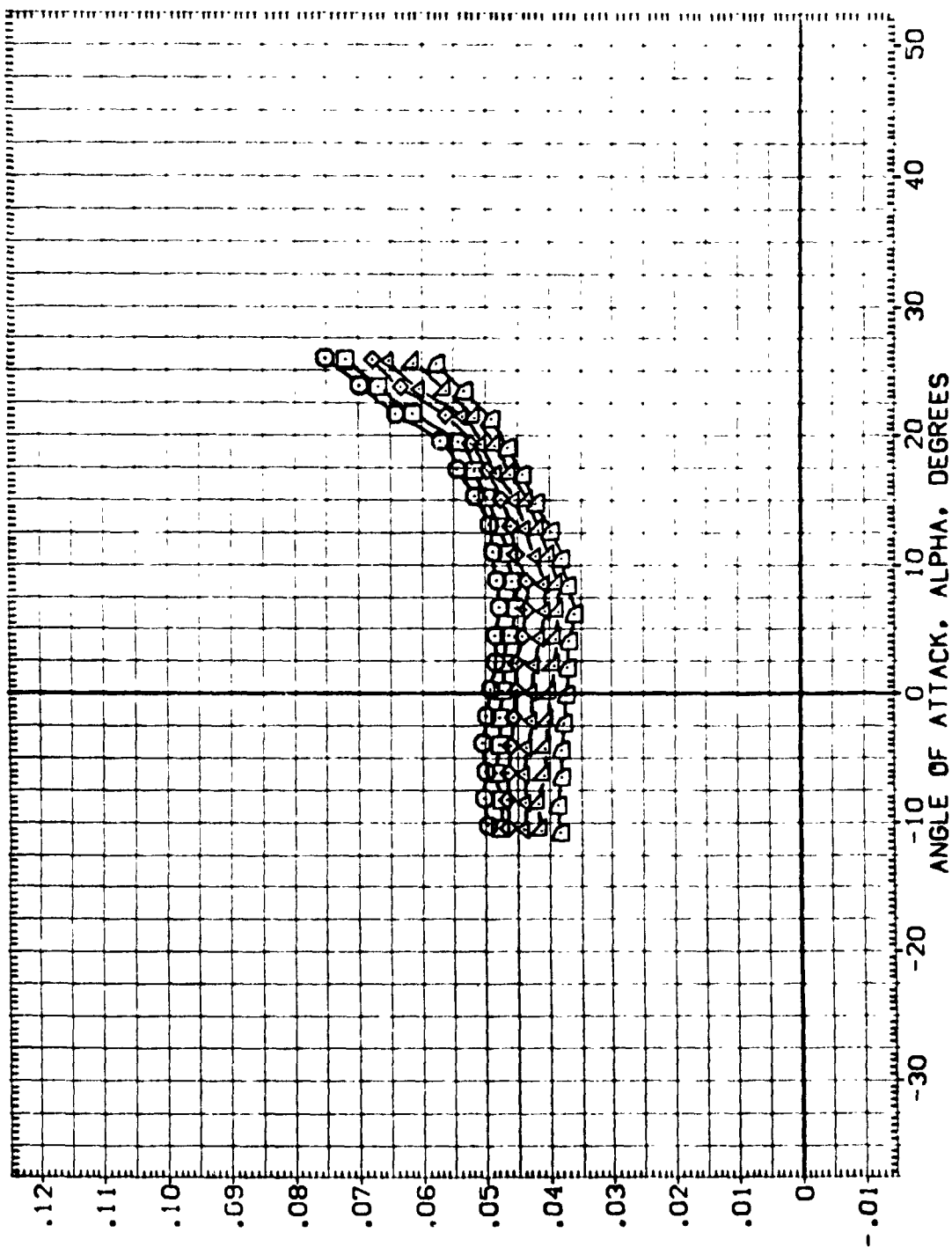


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
[AF8059]	GA119A B61C1F12V51V124E46V1SR15X29	20.000	.000	25.000	.000	SREF 2630.0100 SQ.FT.
[AF8061]	GA119A B61C1F12V51V124E46V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8038]	GA119A B61C1F12V51V124E46V1SR15X29	10.000	.000	25.000	.000	BREF 136.6800 INCHES
[AF8036]	GA119A B61C1F12V51V124E46V1SR15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
[AF8001]	GA119A B61C1F12V51V124E46V1SR15X29	.000	.000	25.000	.000	YMRP 375.0000 INCHES
[AF8003]	GA119A B61C1F12V51V124E46V1SR15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

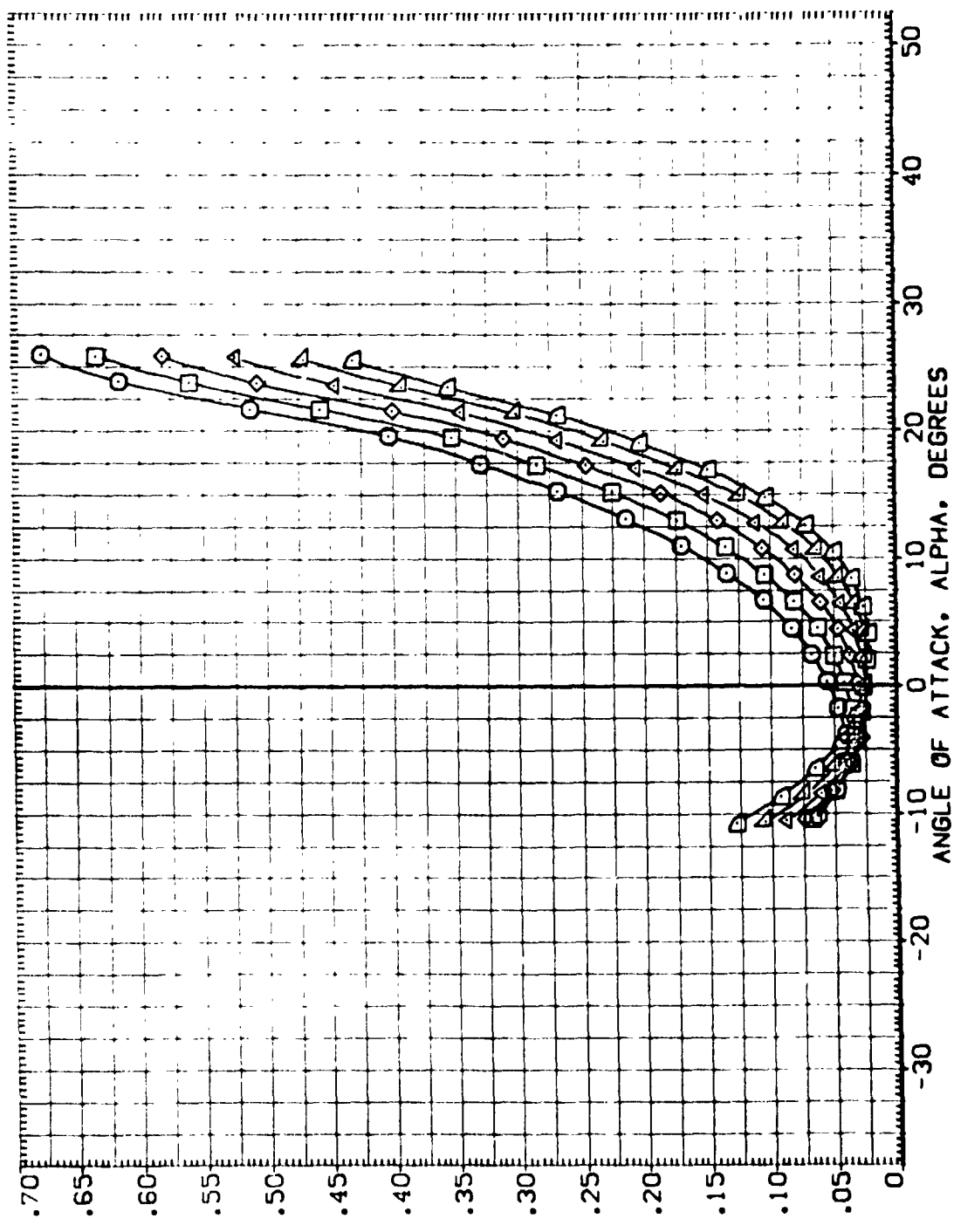


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD FLAP	SPOILER	AILERON	REFERENCE INFORMATION
(AF8059)	0A119A 861C1F12751V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.F. INCHES
(AF8061)	0A119A 861C1F12751V124E46V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8038)	0A119A 861C1F12751V124E46V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8036)	0A119A 861C1F12751V124E46V19R15X29	5.000	.000	25.000	.000	XARP 1076.4800 INCHES
(AF8001)	0A119A 861C1F12751V124E46V19R15X29	.000	.000	25.000	.000	YARP .0000 INCHES
(AF8031)	0A119A 861C1F12751V124E46V19R15X29	-5.000	.000	25.000	.000	ZARP 375.0000 INCHES
						SCALE .0405

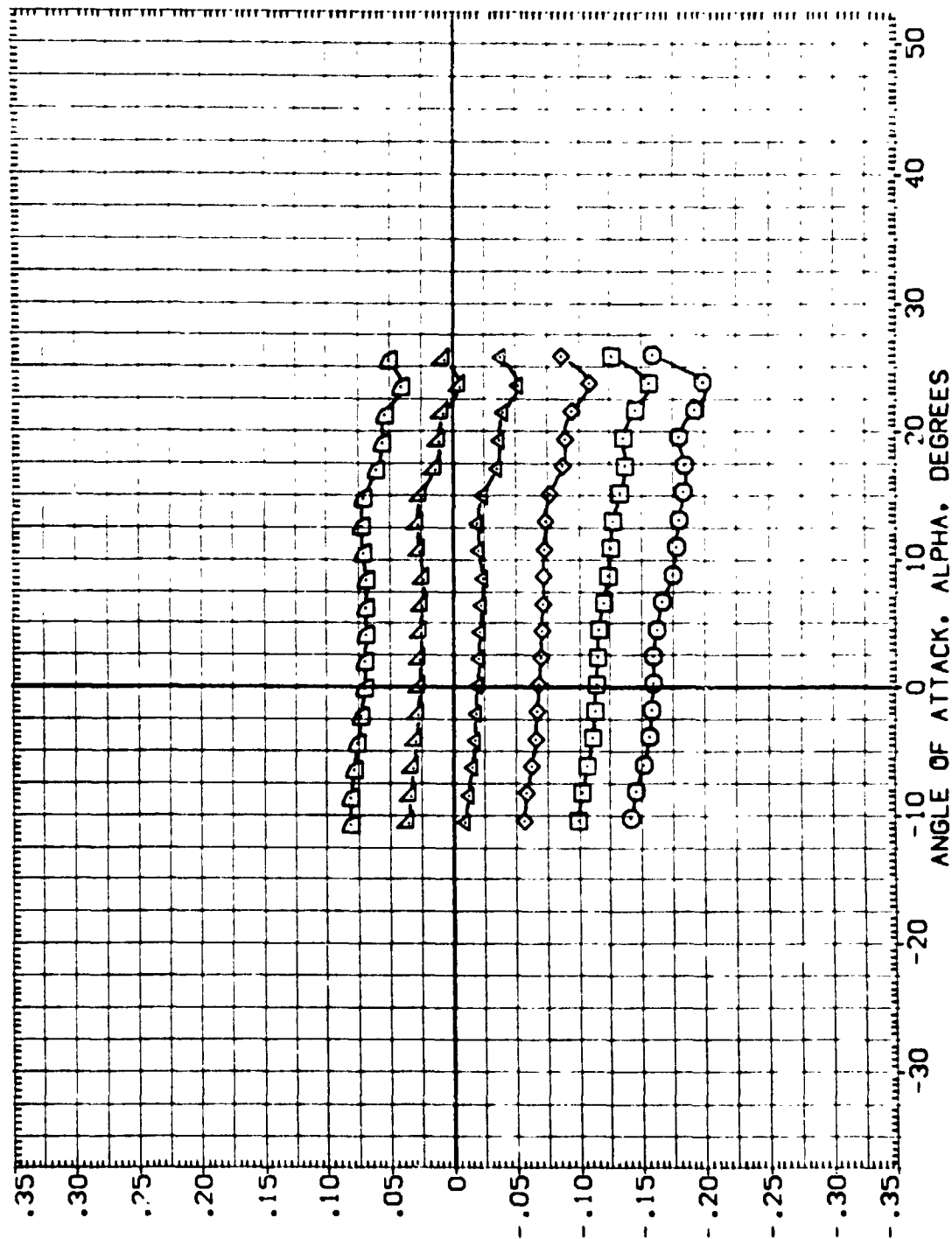


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
(AF8059)	0A119A B61C1F12V51V124E46V19R15X29	20.000	.000	25.000	.000	2690.0100 SQ.FT.
(AF8061)	0A119A B61C1F12V51V124E46V19R15X29	15.000	.000	25.000	.000	474.8101 INCHES
(AF8038)	0A119A B61C1F12V51V124E46V19R15X29	10.000	.000	25.000	.000	936.6800 INCHES
(AF8036)	0A119A B61C1F12V51V124E46V19R15X29	5.000	.000	25.000	.000	1076.4800 INCHES
(AF8001)	0A119A B61C1F12V51V124E46V19R15X29	.000	.000	25.000	.000	375.0000 INCHES
(AF8031)	0A119A B61C1F12V51V124E46V19R15X29	-5.000	.000	25.000	.000	SCALE .0405

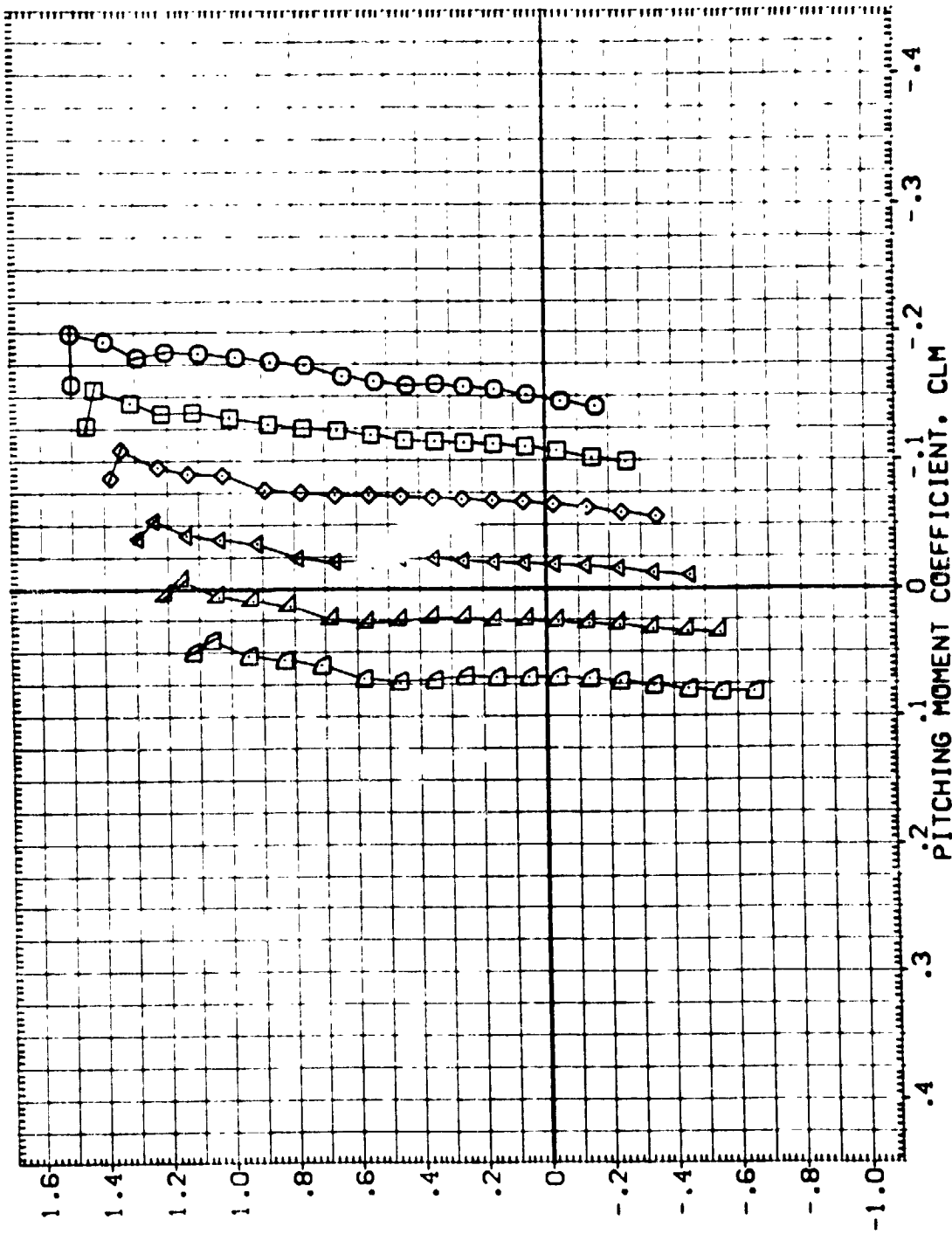


FIG 4 ELEVON EFFECT: VENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A) MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD FLAP	SPD BRK	AILRON	REFERENCE INFORMATION
{AF0000}	0A1119A BS1C11F12451V124E46V1SR15X29	20.000	.000	25.000	.000	SRF 2680.0100 SQ.FT.
{AF0001}	0A1119A BS1C11F12451V124E46V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF0002}	0A1119A BS1C11F12451V124E46V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
{AF0003}	0A1119A BS1C11F12451V124E46V1SR15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
{AF0004}	0A1119A BS1C11F12451V124E46V1SR15X29	0.000	.000	25.000	.000	YMRP 375.0000 INCHES
{AF0005}	0A1119A BS1C11F12451V124E46V1SR15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

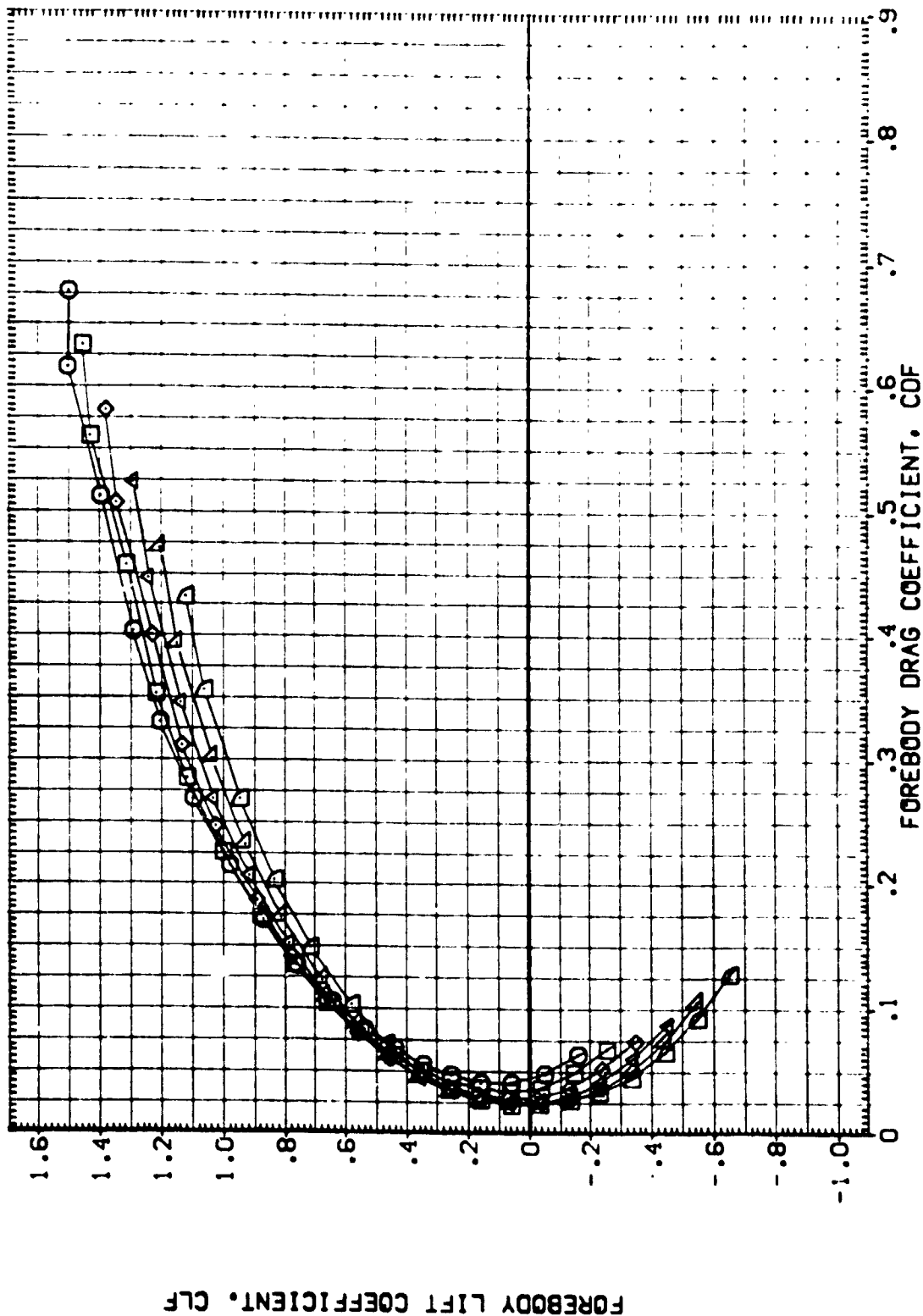


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8059)	0A119A 861C11F12V51V124E46V19R15X29	20.000	.000	25.000	.000	2690.0100 50.FT.
(AF8061)	0A119A 861C11F12V51V124E46V19R15X29	15.000	.000	25.000	.000	474.9100 INCHES
(AF8038)	0A119A 861C11F12V51V124E46V19R15X29	10.000	.000	25.000	.000	936.6300 INCHES
(AF8036)	0A119A 861C11F12V51V124E46V19R15X29	5.000	.000	25.000	.000	1076.4800 INCHES
(AF8001)	0A119A 861C11F12V51V124E46V19R15X29	.000	.000	25.000	.000	375.0000 INCHES
(AF8031)	0A119A 861C11F12V51V124E46V19R15X29	-5.000	.000	25.000	.000	SCALE .0405

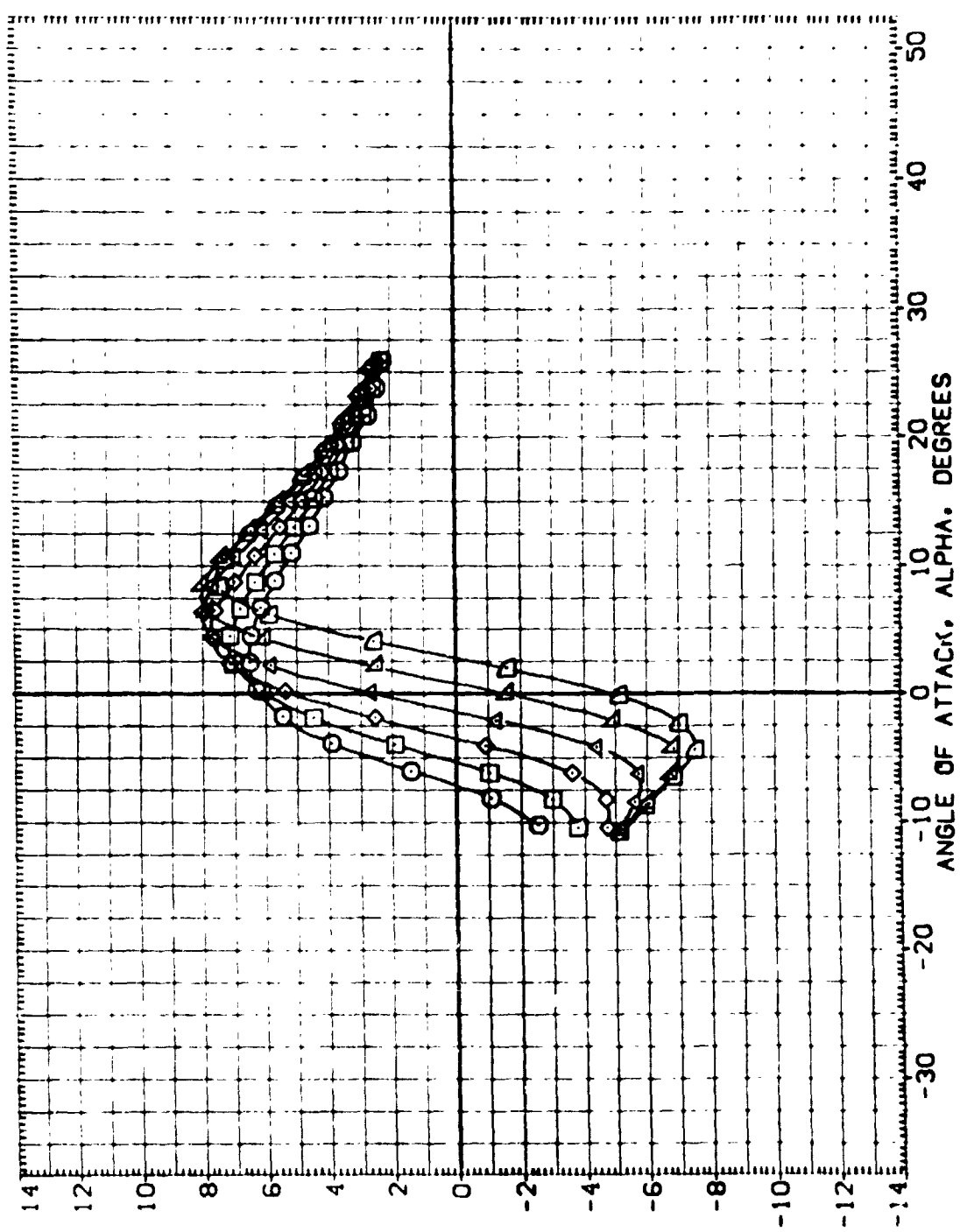


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

[AF8039]	0A113A	BSIC11F1251VI24E46V1SR15X29
[AF8039]	0A113A	BSIC11F1251VI24E46V1SR15X29
[AF8039]	0A113A	BSIC11F1251VI24E46V1SR15X29
[AF8039]	0A113A	BSIC11F1251VI24E46V1SR15X29
[AF8039]	0A113A	BSIC11F1251VI24E46V1SR15X29
[AF8039]	0A113A	BSIC11F1251VI24E46V1SR15X29

ELEVON

20.000	0.000	SPDBRK	0.000	AILRON	0.000	REFERENCE INFORMATION
15.000	0.000	BDCLAP	0.000			SREF 2630.0100 50.45
10.000	0.000		0.000			LREF 474.8100 10.45
5.000	0.000		0.000			SREF 936.6800 10.45
-5.000	0.000		0.000			XREF 1076.4800 10.45
						TRAP 375.0000 10.45
						Z-REF 0.0000 10.45
						SCALE .0405

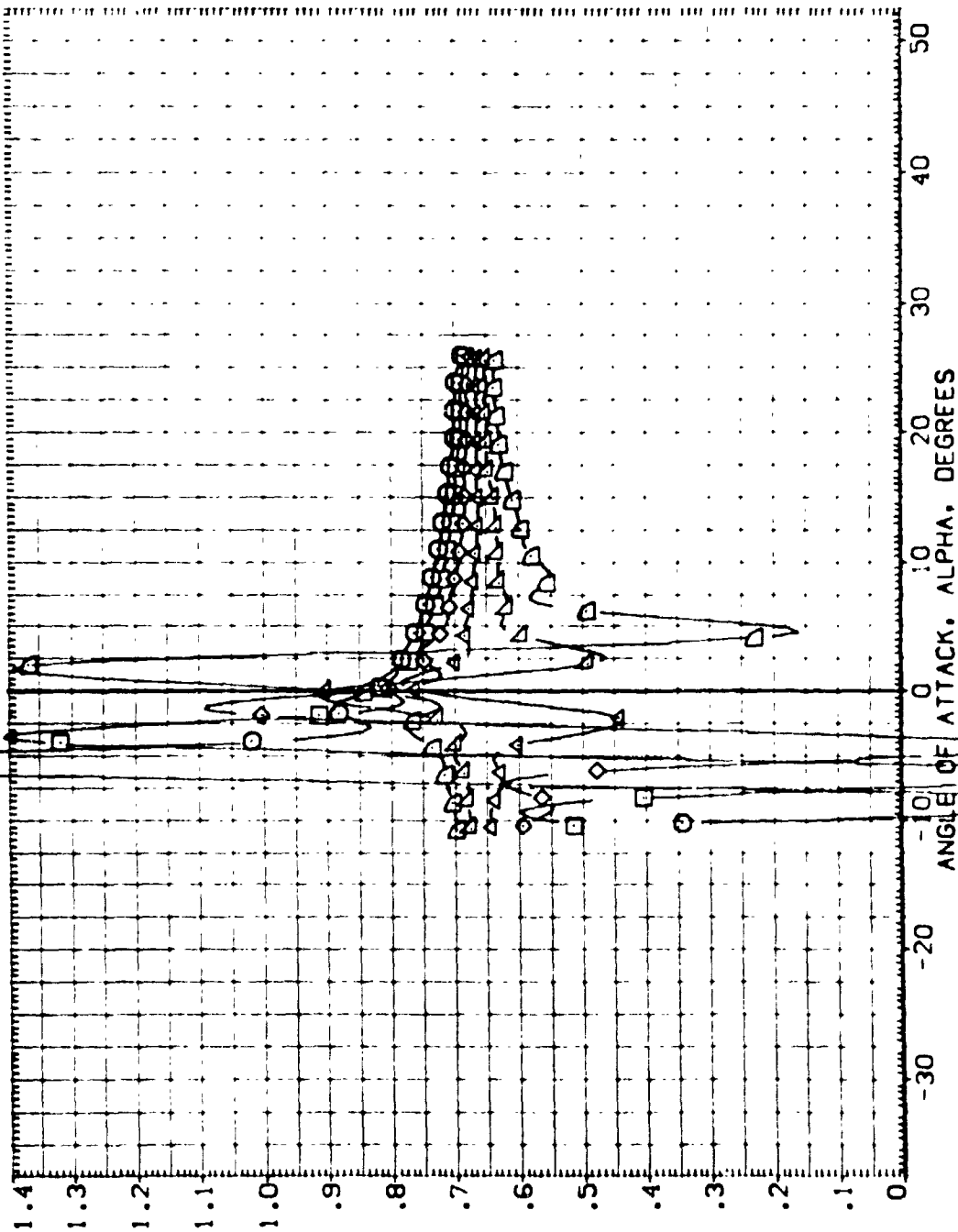


FIG 4 ELEVON EFFECTIVENESS - ELEVON E46 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AILRON	REFERENCE INFORMATION
(AF80011)	0A119A 061C11F 2-5 V124E16V19A15X29	.000	.000	25.000	.000	SREF 263 3100 SQ.FT.
(AF80030)	0A119A 061C11F 2-5 V124E16V19A15X29	-10.000	.000	25.000	.000	LREF 474 1100 INCHES
(AF80020)	0A119A 061C11F 2-5 V124E16V19A15X29	-15.000	.000	25.000	.000	BREF 936 2300 INCHES
(AF8013)	0A119A 061C11F 2-5 V124E16V19A15X29	-20.000	.000	25.000	.000	XMRP 1076 1800 INCHES
(AF8010)	0A119A 061C11F 2-5 V124E16V19A15X29	-30.000	.000	25.000	.000	YMRP 375 3000 INCHES
(AF8009)	0A119A 061C11F 2-5 V124E16V19A15X29	-40.000	.000	25.000	.000	ZMRP SCALE 3405 INCHES

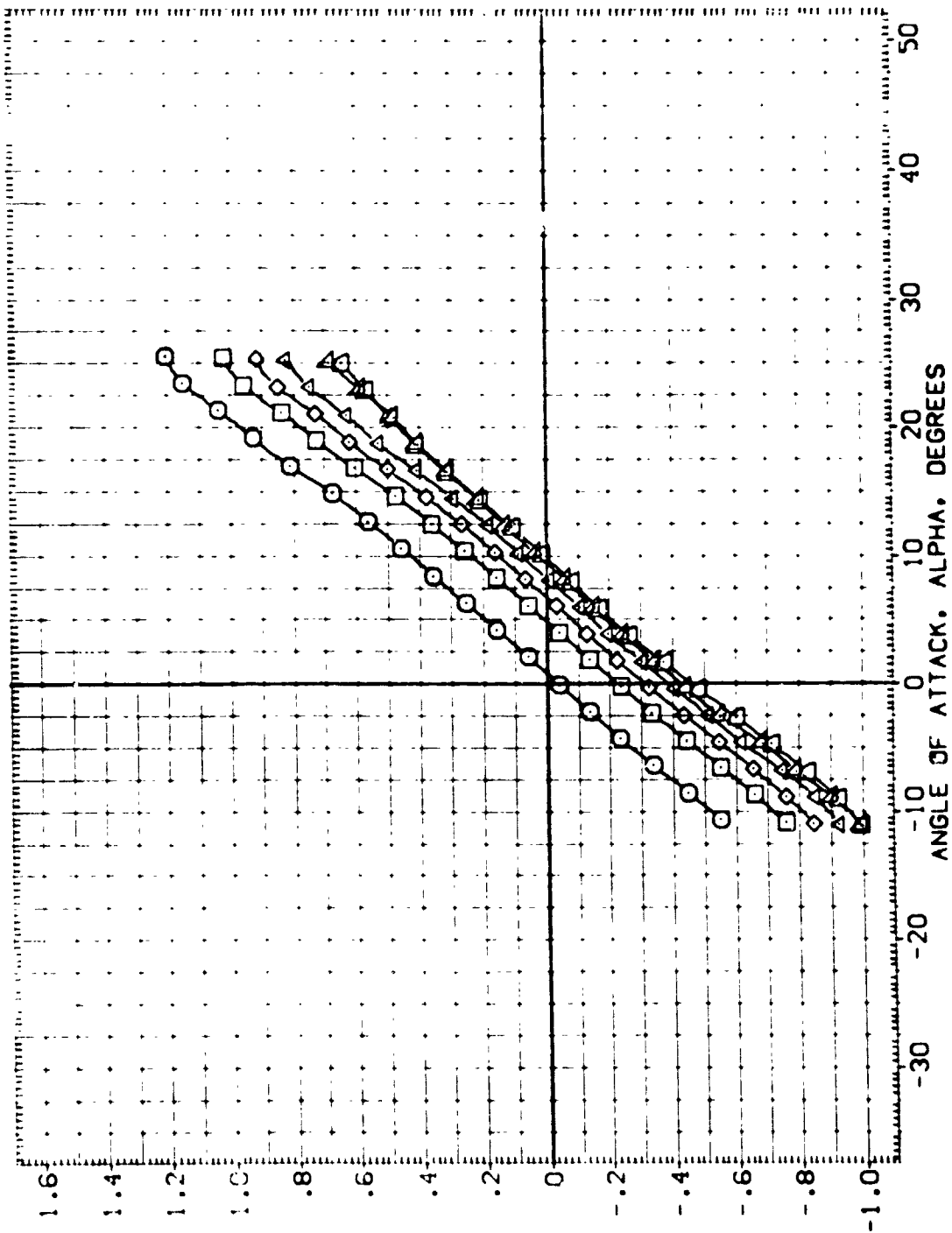


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
(AF8001)	DA119A B61C1F12V51V124E16V19R15X29	.000	.000	25.000	.000	SREF 2650.0100 SQ.FT.
(AF8002)	DA119A B61C1F12V51V124E16V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8003)	DA119A B61C1F12V51V124E16V19R15X29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8004)	DA119A B61C1F12V51V124E16V19R15X29	-20.000	.000	25.000	.000	XHREF 1076.4800 INCHES
(AF8005)	DA119A B61C1F12V51V124E16V19R15X29	-30.000	.000	25.000	.000	YHREF .0000 INCHES
(AF8006)	DA119A B61C1F12V51V124E16V19R15X29	-40.000	.000	25.000	.000	ZHREF 375.0000 INCHES
						SCALE .0405

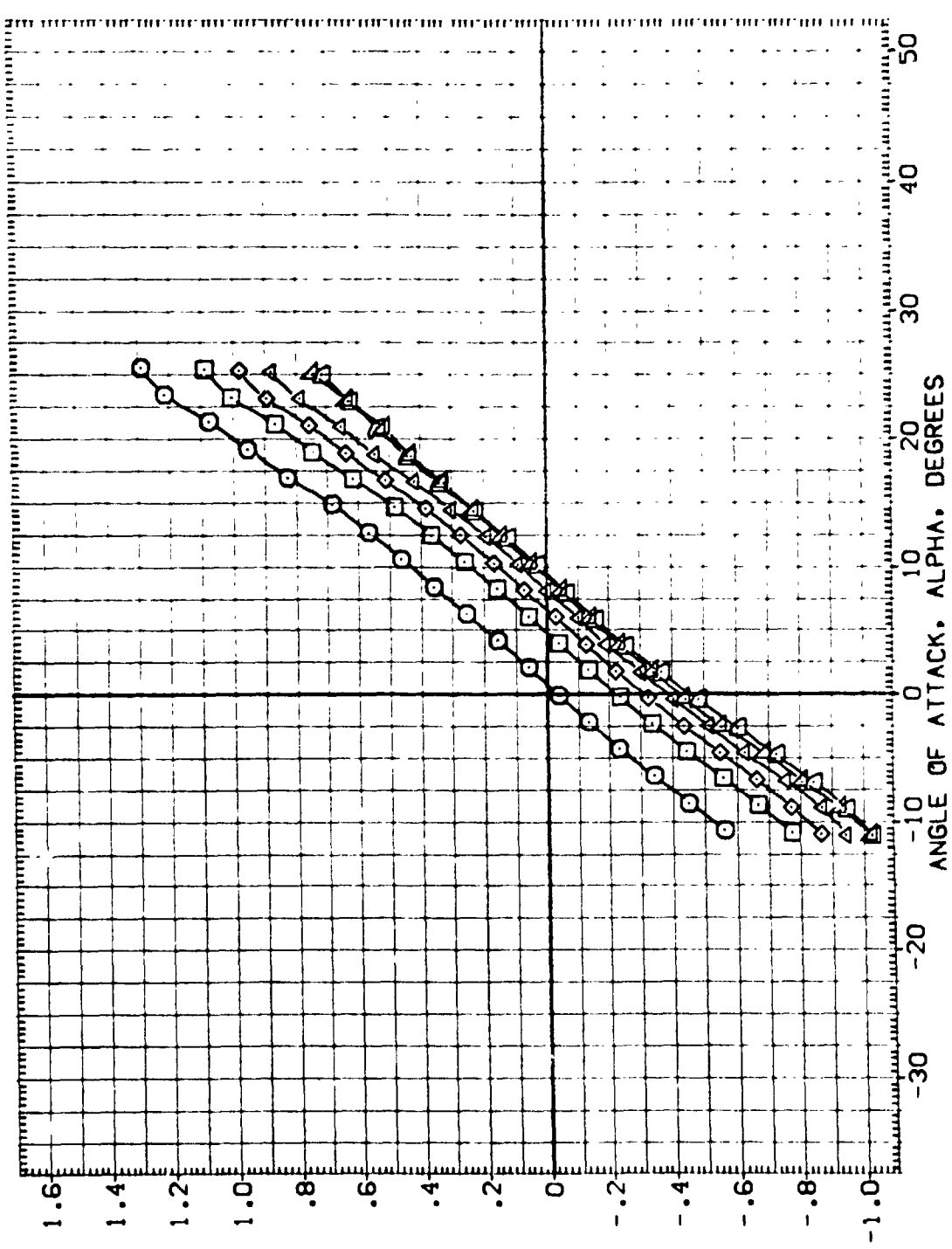


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

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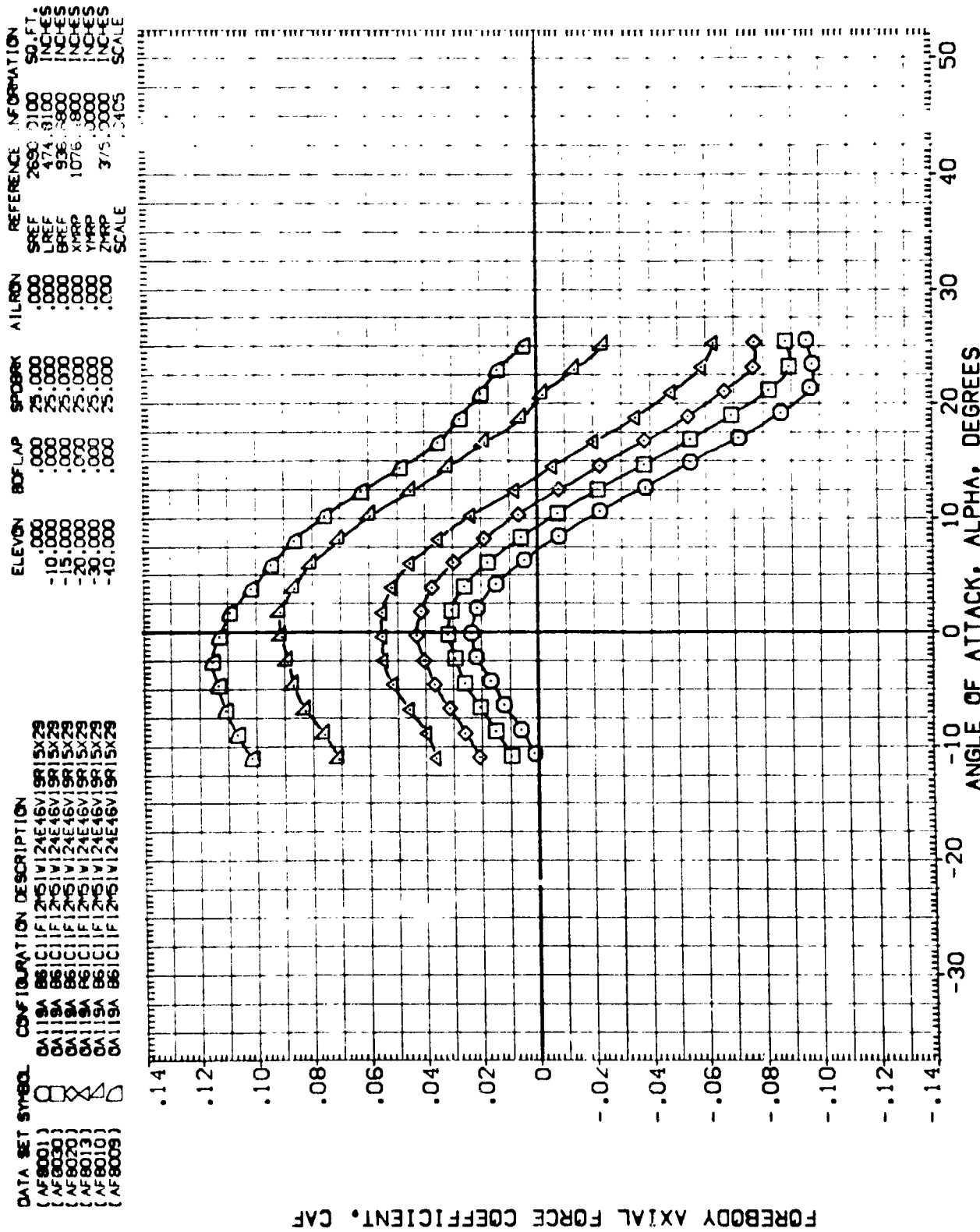


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AIRLON	REFERENCE INFORMATION
(AF8001)	0A119A B61C1F12P51V124E46V1SR1SV29	.000	.000	25.000	.000	SREF 2690.0100 50.000
(AF8002)	0A119A B61C1F12P51V124E46V1SR1SV29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8003)	0A119A B61C1F12P51V124E46V1SR1SV29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8004)	0A119A B61C1F12P51V124E46V1SR1SV29	-20.000	.000	25.000	.000	YMRP 1076.4800 INCHES
(AF8005)	0A119A B61C1F12P51V124E46V1SR1SV29	-30.000	.000	25.000	.000	ZMRP 375.0000 INCHES
(AF8006)	0A119A B61C1F12P51V124E46V1SR1SV29	-40.000	.000	25.000	.000	SCALE .0405 SCALE

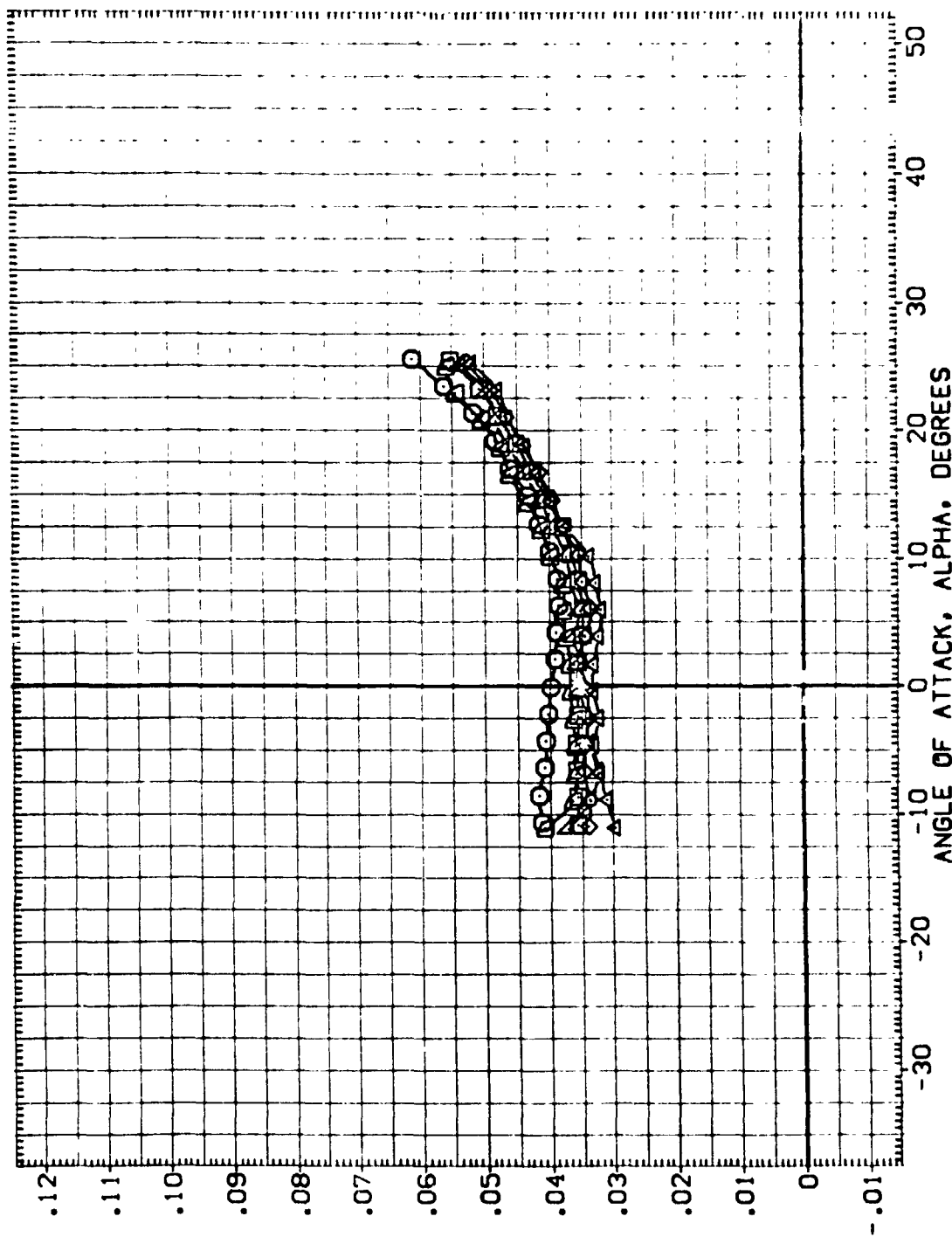


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILERON	REFERENCE INFORMATION
(AF8001)	DA119A B61C1F12MS1V124E46V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8002)	DA119A B61C1F12MS1V124E46V1SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8003)	DA119A B61C1F12MS1V124E46V1SR15X29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8004)	DA119A B61C1F12MS1V124E46V1SR15X29	-20.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8005)	DA119A B61C1F12MS1V124E46V1SR15X29	-25.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8006)	DA119A B61C1F12MS1V124E46V1SR15X29	-30.000	.000	25.000	.000	ZMRP .0000 INCHES
						SCALE .0405

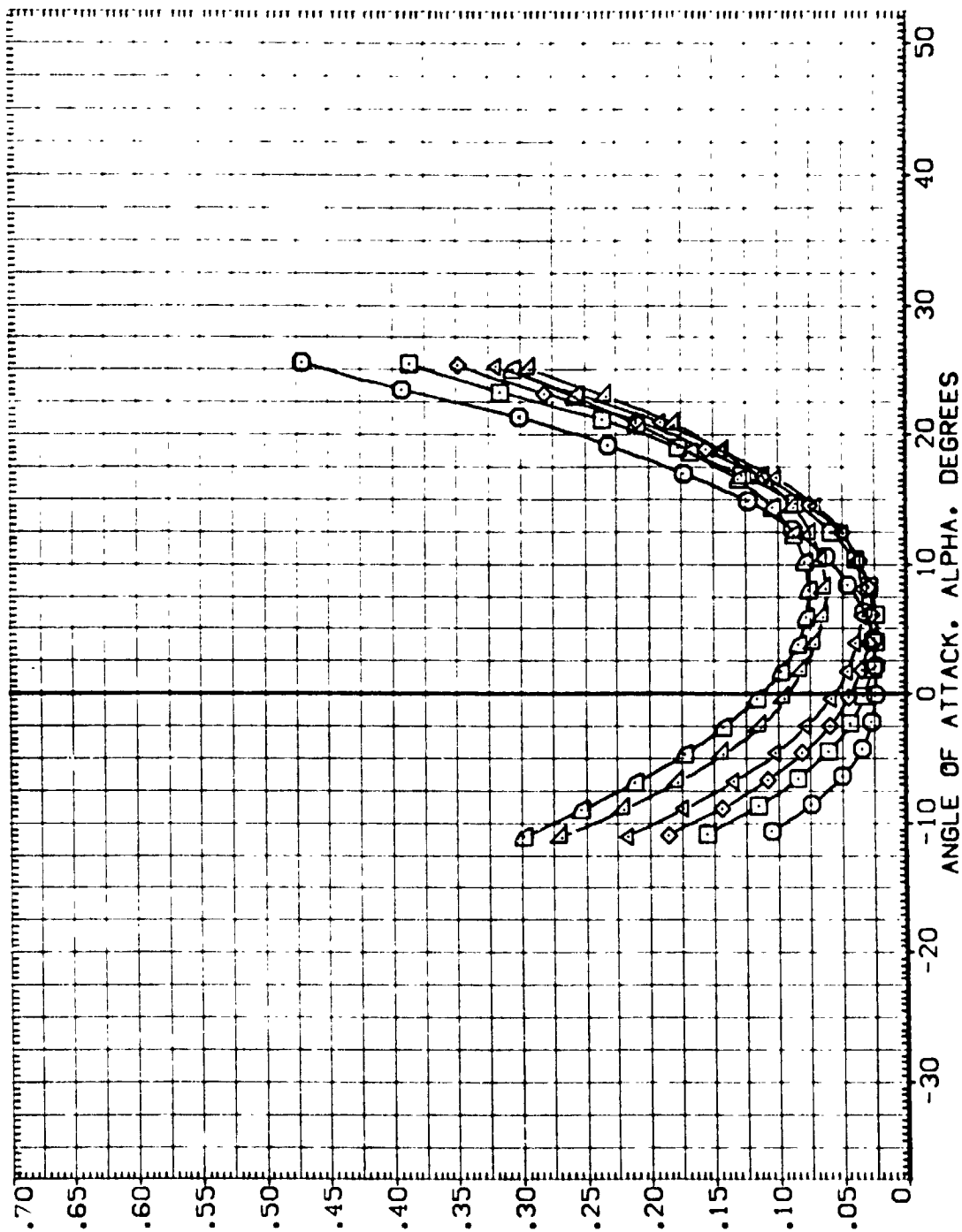


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AF8001)	0A11A	661C11F12751V124E46V19R15X29
(AF8002)	0A11A	661C11F12751V124E46V19R15X29
(AF8003)	0A11A	661C11F12751V124E46V19R15X29
(AF8004)	0A11A	661C11F12751V124E46V19R15X29
(AF8005)	0A11A	661C11F12751V124E46V19R15X29

ELEVON BOFLAP SPOBRK ALLRON

ELEVON	BOFLAP	SPOBRK	ALLRON
.000	.000	.000	.000
-10.000	.000	.000	.000
-15.000	.000	.000	.000
-20.000	.000	.000	.000
-30.000	.000	.000	.000
-40.000	.000	.000	.000

REFERENCE INFORMATION

SREF	2690.0100	50 FT
LREF	474.8100	INCHES
BREF	936.6800	INCHES
XMRP	1076.4800	INCHES
YMRP	.0000	INCHES
ZMRP	375.0000	INCHES
SCALE	.0405	SCALE

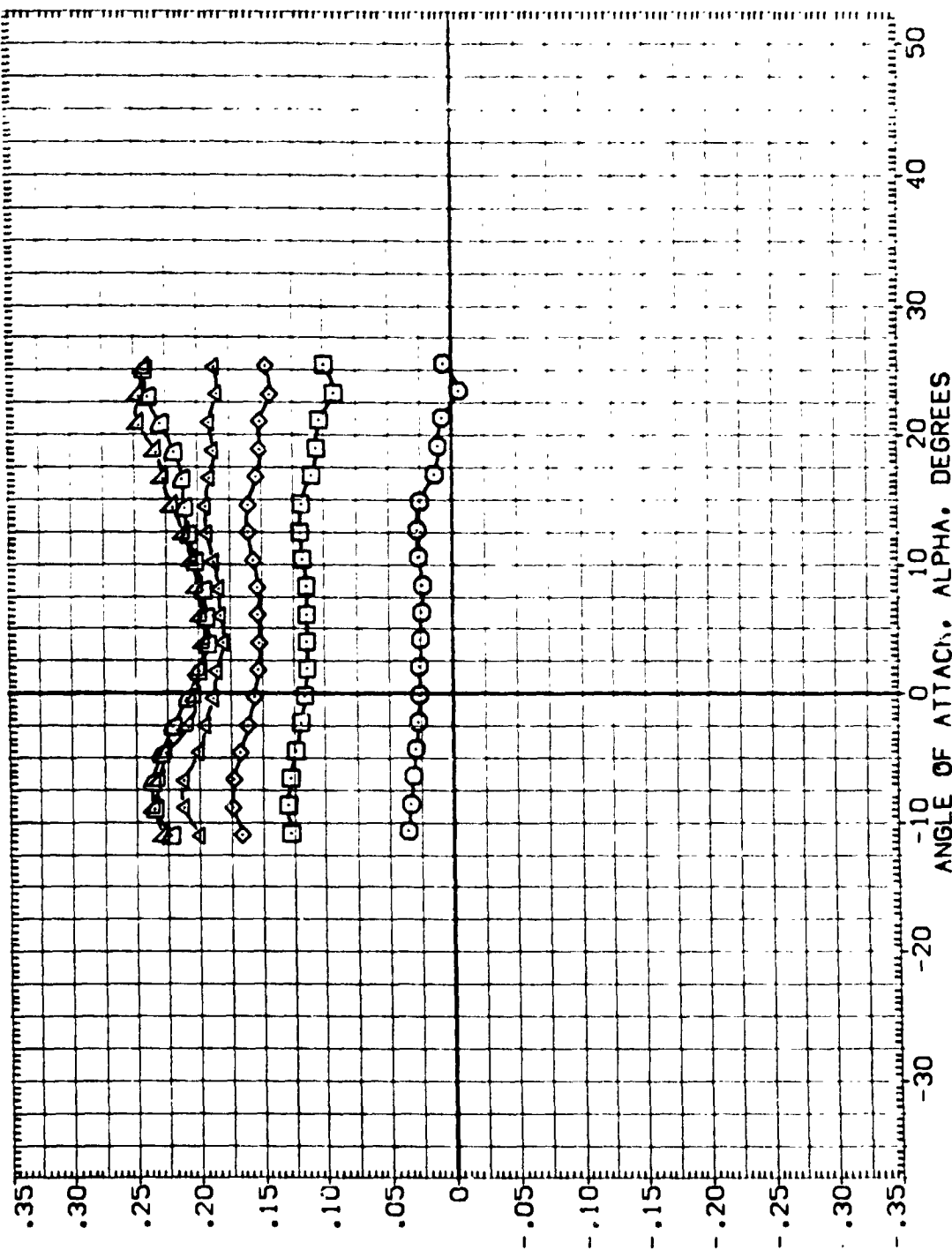


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPODBRK	AILRON	REFERENCE INFORMATION
(AF8001)	0A119A B61C1F12V51V124E46V1SR15X29	.000	.000	25.000	.000	SREF 269.0100 SQ.FT.
(AF8030)	0A119A B61C1F12V51V124E46V1SR15X29	-10.000	.000	25.000	.000	LREF 474.3100 INCHES
(AF8020)	0A119A B61C1F12V51V124E46V1SR15X29	-5.000	.000	25.000	.000	BREF 936.5800 INCHES
(AF8013)	0A119A B61C1F12V51V124E46V1SR15X29	-20.000	.000	25.000	.000	XMRP 1076.1800 INCHES
(AF8010)	0A119A B61C1F12V51V124E46V1SR15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8009)	0A119A B61C1F12V51V124E46V1SR15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

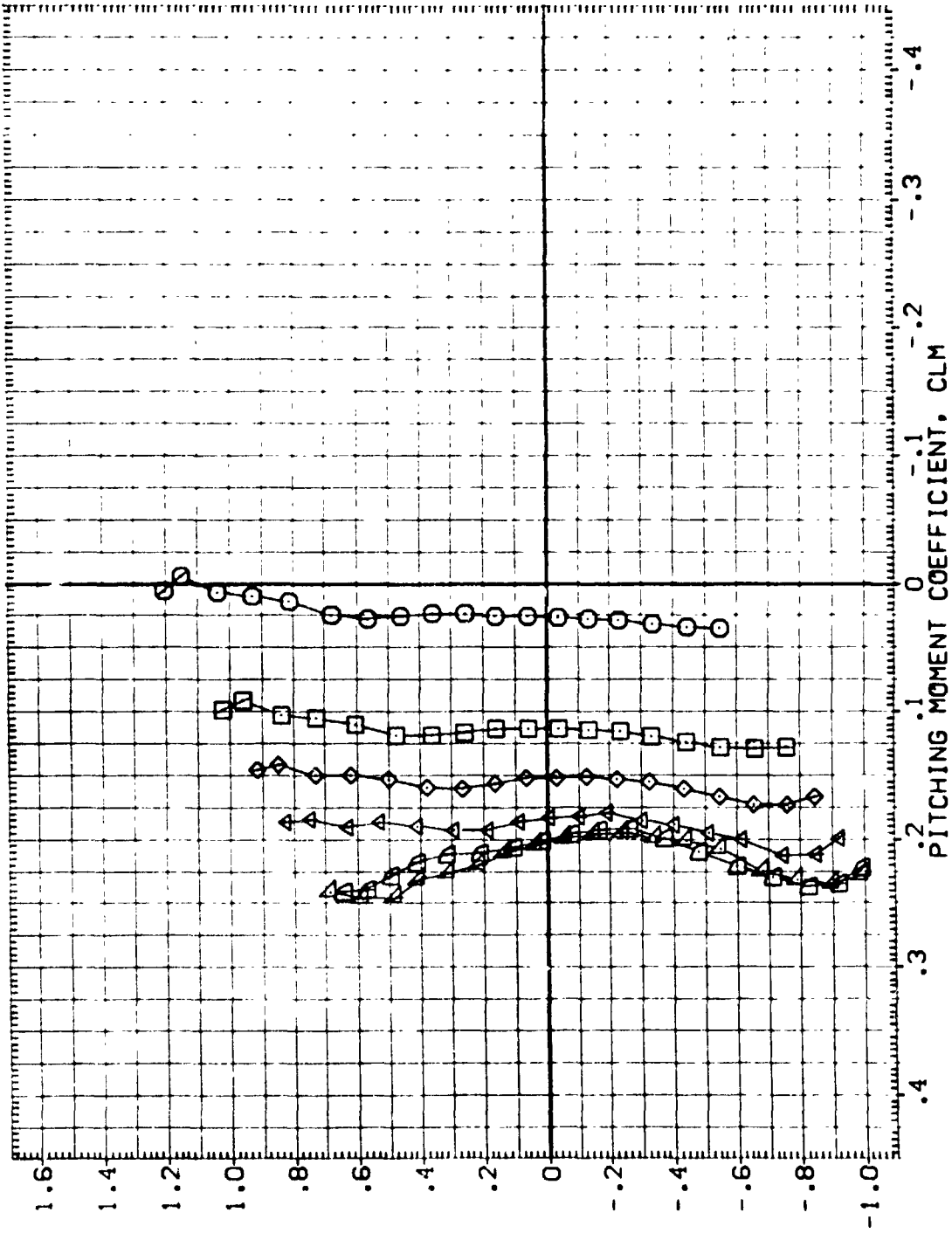


FIG 5 ELEVON EFFECTIVENESS - ELEVON E45 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPORBK	AILRON	REFERENCE INFORMATION
(AF8001)	CA119A BS1C11F124E46V19R15X29	.000	.000	23.000	.000	SREF 269C 0100 SQ.FT. INO-ES
(AF8002)	CA119A BS1C11F124E46V19R15X29	-10.000	.000	23.000	.000	LREF 474.8100 INO-ES
(AF8003)	CA119A BS1C11F124E46V19R15X29	-15.000	.000	23.000	.000	BREF 936.6800 INO-ES
(AF8004)	CA119A BS1C11F124E46V19R15X29	-20.000	.000	23.000	.000	YMRP 1076.4800 INO-ES
(AF8005)	CA119A BS1C11F124E46V19R15X29	-30.000	.000	23.000	.000	ZMRP 375.0000 INO-ES
(AF8006)	CA119A BS1C11F124E46V19R15X29	-40.000	.000	23.000	.000	SCALE .0405

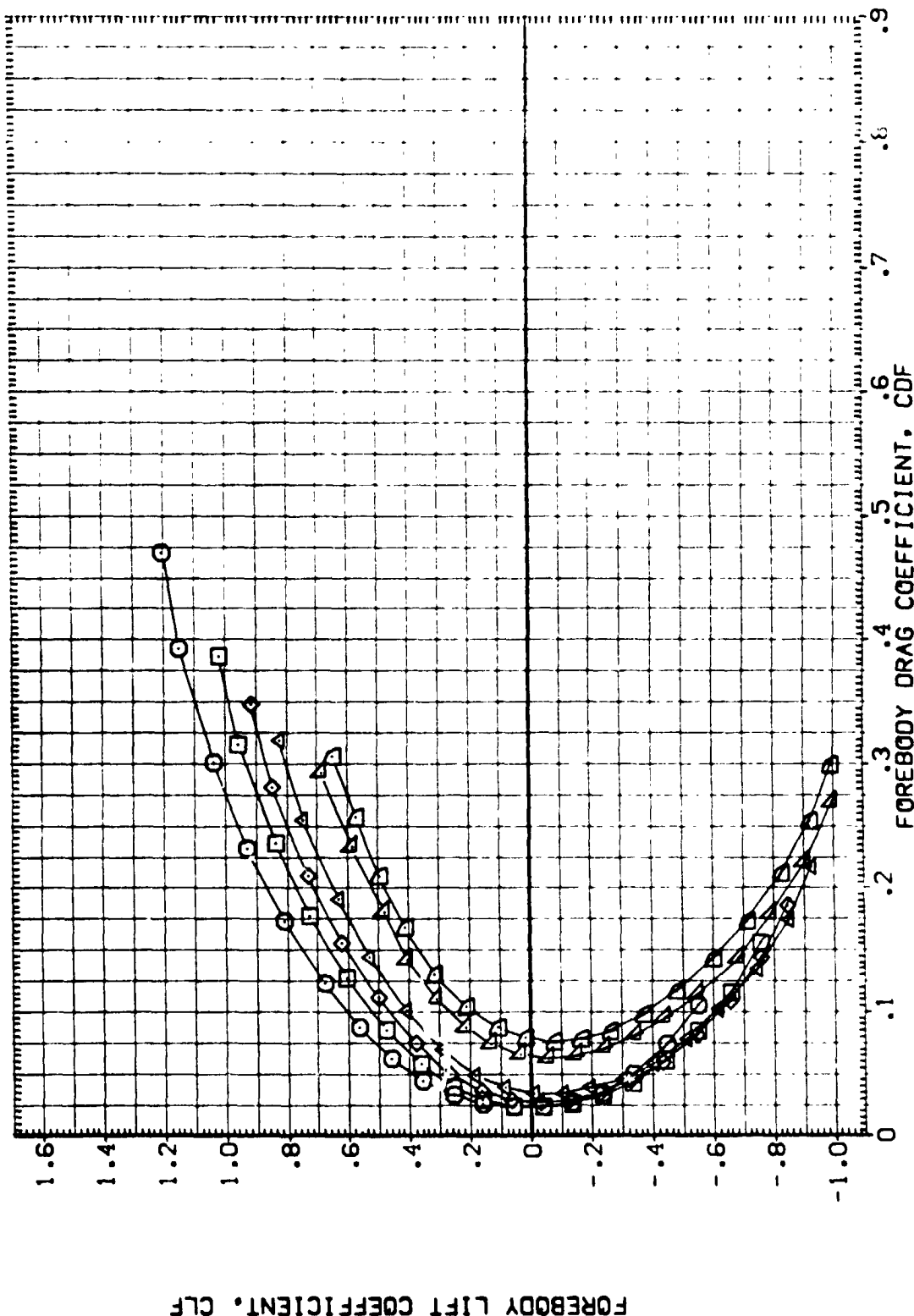


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26 PAGE 18

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRION	REFERENCE INFORMATION
{AF8001}	0A119A B61C1F12G51V124E46V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{AF8030}	0A119A B61C1F12G51V124E46V1SR15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF8020}	0A119A B61C1F12G51V124E46V1SR15X29	-10.000	.000	25.000	.000	BREF 936.6800 INCHES
{AF8013}	0A119A B61C1F12G51V124E46V1SR15X29	-15.000	.000	25.000	.000	XMRP 1076.4800 INCHES
{AF8010}	0A119A B61C1F12G51V124E46V1SR15X29	-20.000	.000	25.000	.000	YMRP .0000 INCHES
{AF8009}	0A119A B61C1F12G51V124E46V1SR15X29	-30.000	.000	25.000	.000	ZMRP 375.0000 INCHES
		-40.000	.000	25.000	.000	SCALE .0405

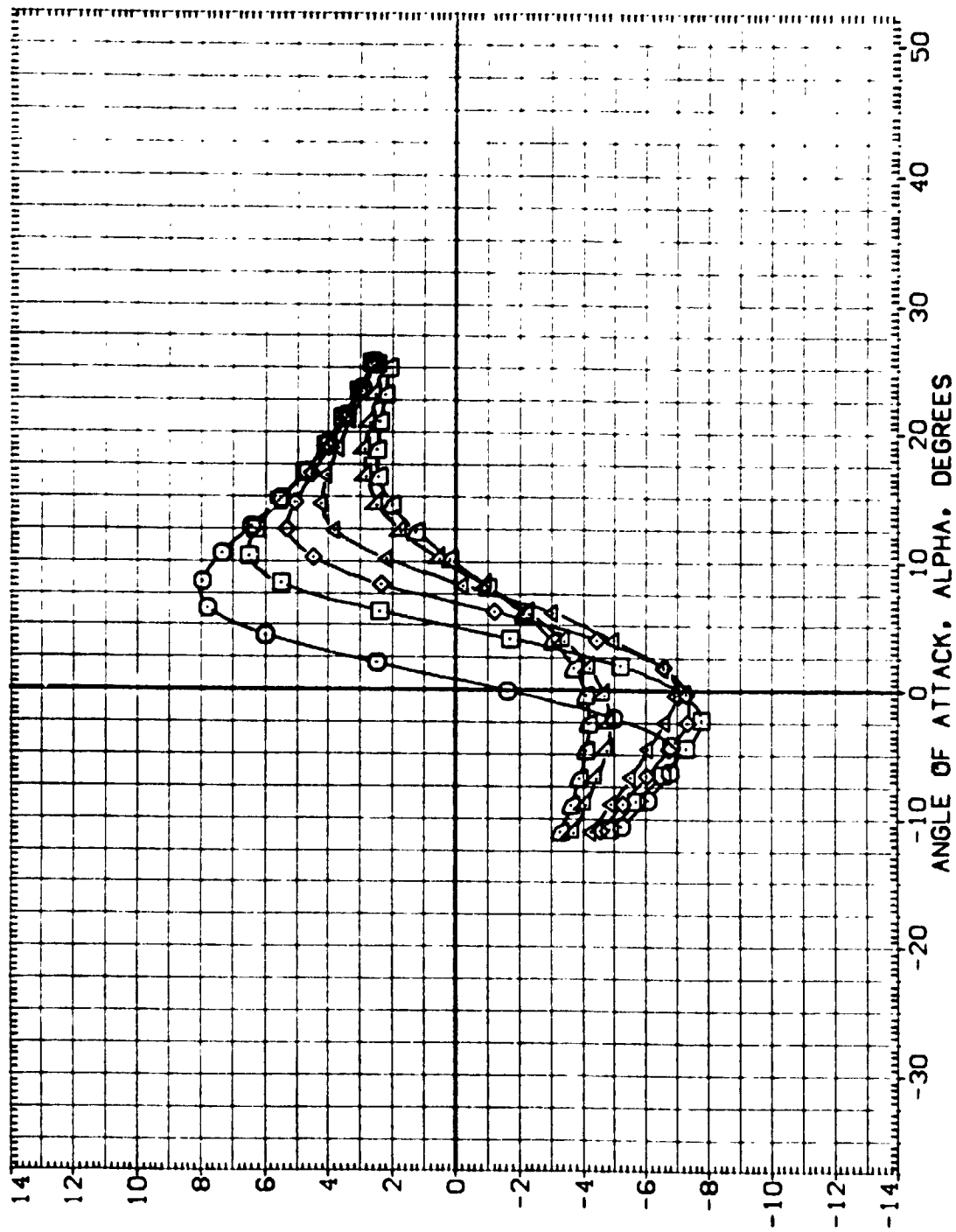


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8001)	0A119A 861C11F12V51V124E46V1SR15X29	.000	25.000	.000	SREF 2690.0100 SO.FT.
(AF8002)	0A119A 861C11F12V51V124E46V1SR15X29	.000	25.000	.000	LREF 474.8100 INCHES
(AF8003)	0A119A 861C11F12V51V124E46V1SR15X29	.000	25.000	.000	BREF 936.8800 INCHES
(AF8004)	0A119A 861C11F12V51V124E46V1SR15X29	.000	25.000	.000	XRRP 1076.4800 INCHES
(AF8005)	0A119A 861C11F12V51V124E46V1SR15X29	.000	25.000	.000	YRRP .0000 INCHES
(AF8006)	0A119A 861C11F12V51V124E46V1SR15X29	.000	25.000	.000	ZRRP 375.0000 INCHES
					SCALE .0405

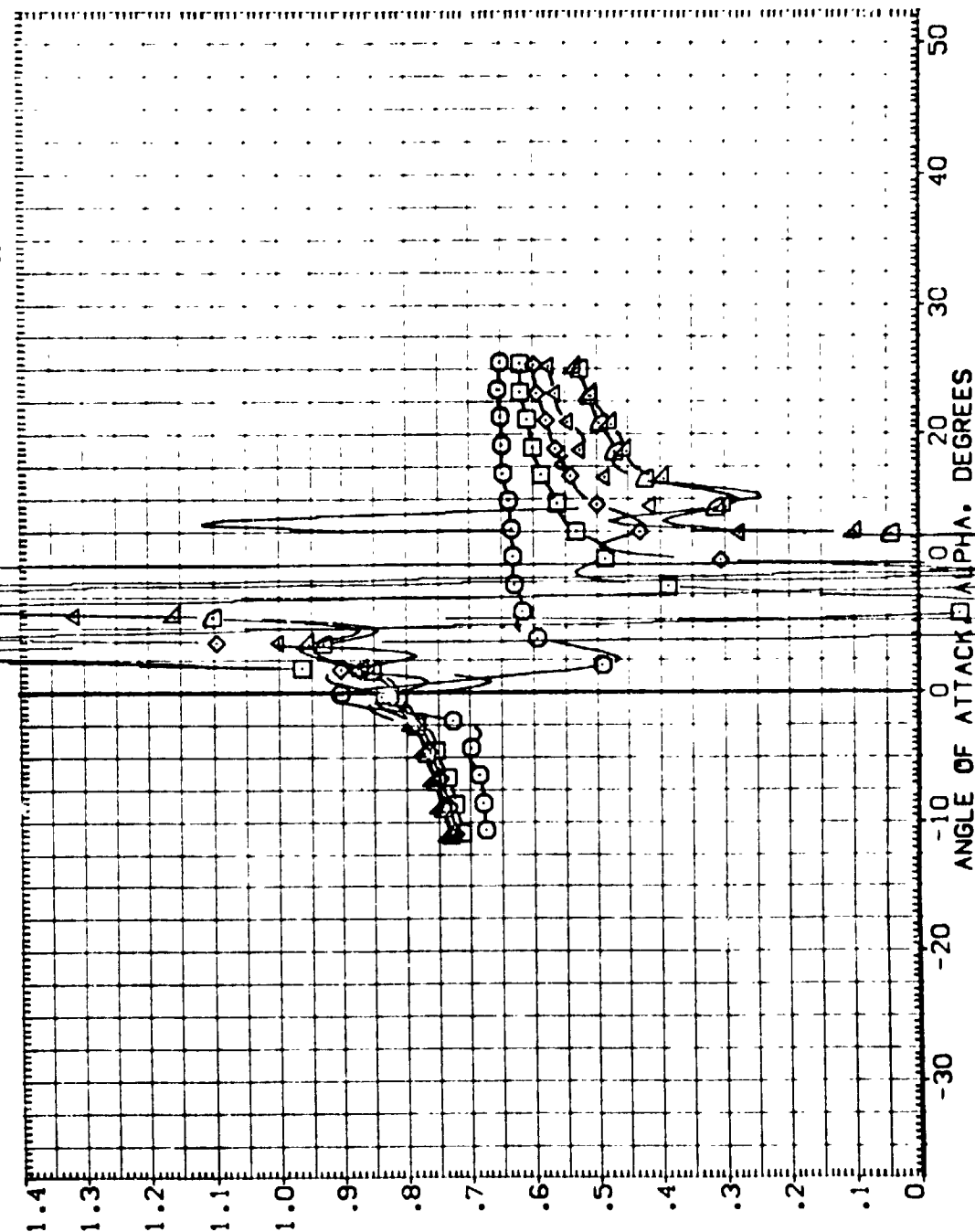


FIG 5 ELEVON EFFECTIVENESS - ELEVON E46 (NEGATIVE ELEVON DEFLECTIONS)

CAMACH = .26

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[REDACTED]

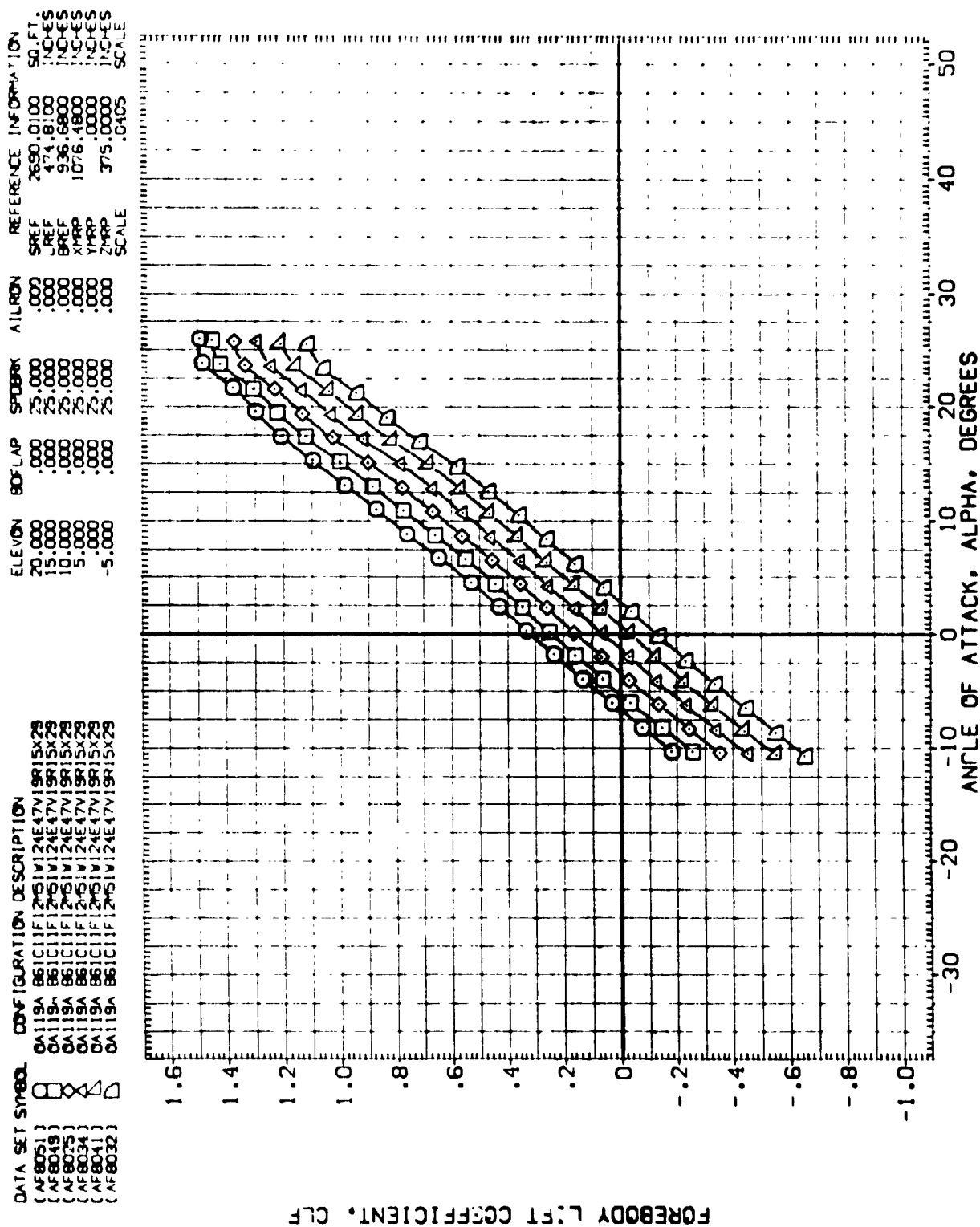


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

CAMACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8051)	DA119A 86IC11F12451V124E47V1SR15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8049)	DA119A 86IC11F12451V124E47V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INC-E'S
(AF8023)	DA119A 86IC11F12451V124E47V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800 INC-E'S
(AF8034)	DA119A 86IC11F12451V124E47V1SR15X29	5.000	.000	25.000	.000	XREF 1076.4800 INC-E'S
(AF8041)	DA119A 86IC11F12451V124E47V1SR15X29	.000	.000	25.000	.000	YREF .0000 INC-E'S
(AF8032)	DA119A 86IC11F12451V124E47V1SR15X29	-5.000	.000	25.000	.000	ZREF 375.0000 INC-E'S
						SCALE .0405

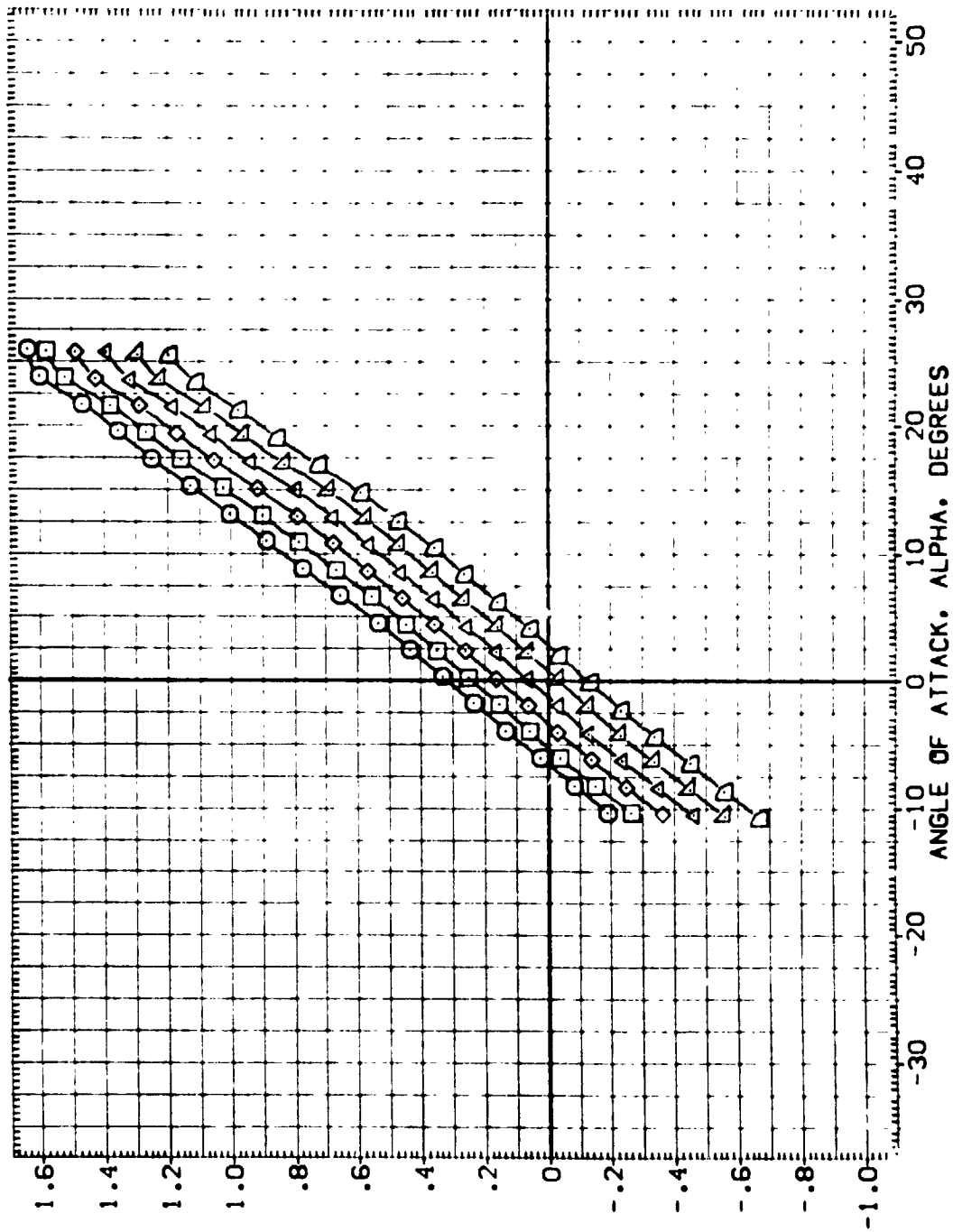


FIG 6 ELEVON EFFECTIVENESS - ELEVON F47 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AILRON	REFERENCE INFORMATION
(AF8051)	DA119A BS1C1F125V124E47V19R15X29	20.000	.000	25.000	.000	SREF 269C 0.00 SC.71. INCHES
(AF8049)	DA119A BS1C1F125V124E47V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8025)	DA119A BS1C1F125V124E47V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8034)	DA119A BS1C1F125V124E47V19R15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8041)	DA119A BS1C1F125V124E47V19R15X29	.000	.000	25.000	.000	ZMRP 375.0000 INCHES
(AF8032)	DA119A BS1C1F125V124E47V19R15X29	-5.000	.000	25.000	.000	SCALE .3405 INCHES

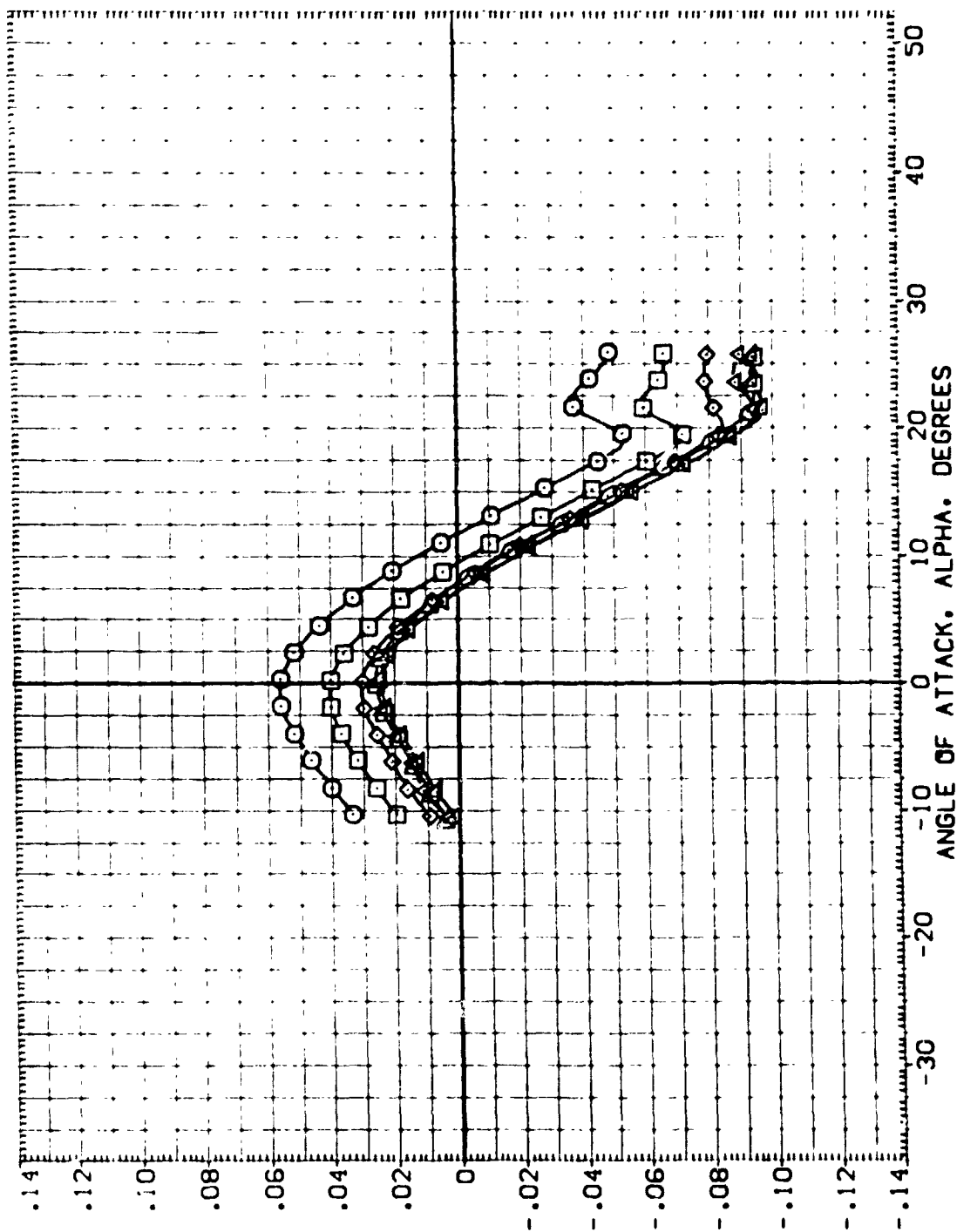


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

BASE AXIAL FORCE COEFFICIENT, CAB

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AIRLON	REFERENCE INFORMATION
(AF8001)	0A119A BSIC1IF12G1V124E47V SR1SX29	20.000	.000	25.000	.000	269L .100 SQ.FT.
(AF8002)	0A119A BSIC1IF12G1V124E47V SR1SX29	15.000	.000	25.000	.000	474 .8100 INCHES
(AF8003)	0A119A BSIC1IF12G1V124E47V SR1SX29	10.000	.000	25.000	.000	536 .6800 INCHES
(AF8004)	0A119A BSIC1IF12G1V124E47V SR1SX29	5.000	.000	25.000	.000	1076 .1800 INCHES
(AF8001)	0A119A BSIC1IF12G1V124E47V SR1SX29	.000	.000	25.000	.000	375 .0000 INCHES
(AF8002)	0A119A BSIC1IF12G1V124E47V SR1SX29	-5.000	.000	25.000	.000	SCALE .0405

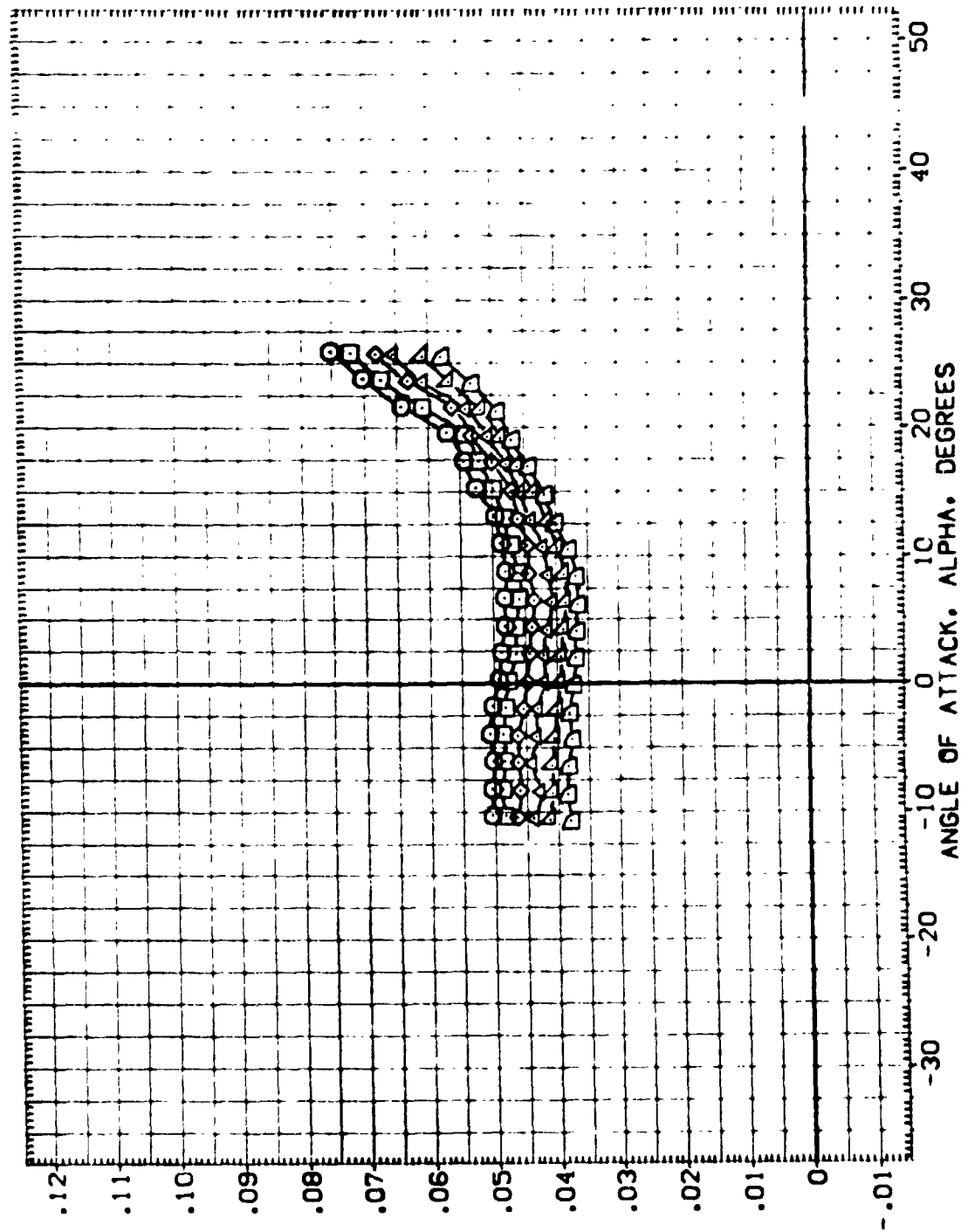


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTION)

(A)HACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AILRON	REFERENCE INFORMATION
AF8031	0A119A BS1C11F 2V61V124E47V1SR15X29	20.000	.000	20.000	.000	SREF 2680.0100 SQ.FT.
AF8049	0A119A BS1C11F 2V61V124E47V1SR15X29	15.000	.000	20.000	.000	LREF 474.8100 INCHES
AF8025	0A119A BS1C11F 2V61V124E47V1SR15X29	10.000	.000	20.000	.000	TRREF 936.6800 INCHES
AF8034	0A119A BS1C11F 2V61V124E47V1SR15X29	5.000	.000	20.000	.000	XREF 1076.4800 INCHES
AF8041	0A119A BS1C11F 2V61V124E47V1SR15X29	.000	.000	20.000	.000	YREF .0000 INCHES
AF8032	0A119A BS1C11F 2V61V124E47V1SR15X29	-5.000	.000	20.000	.000	ZREF 375.0000 INCHES
						SCALE .0405 SCALE

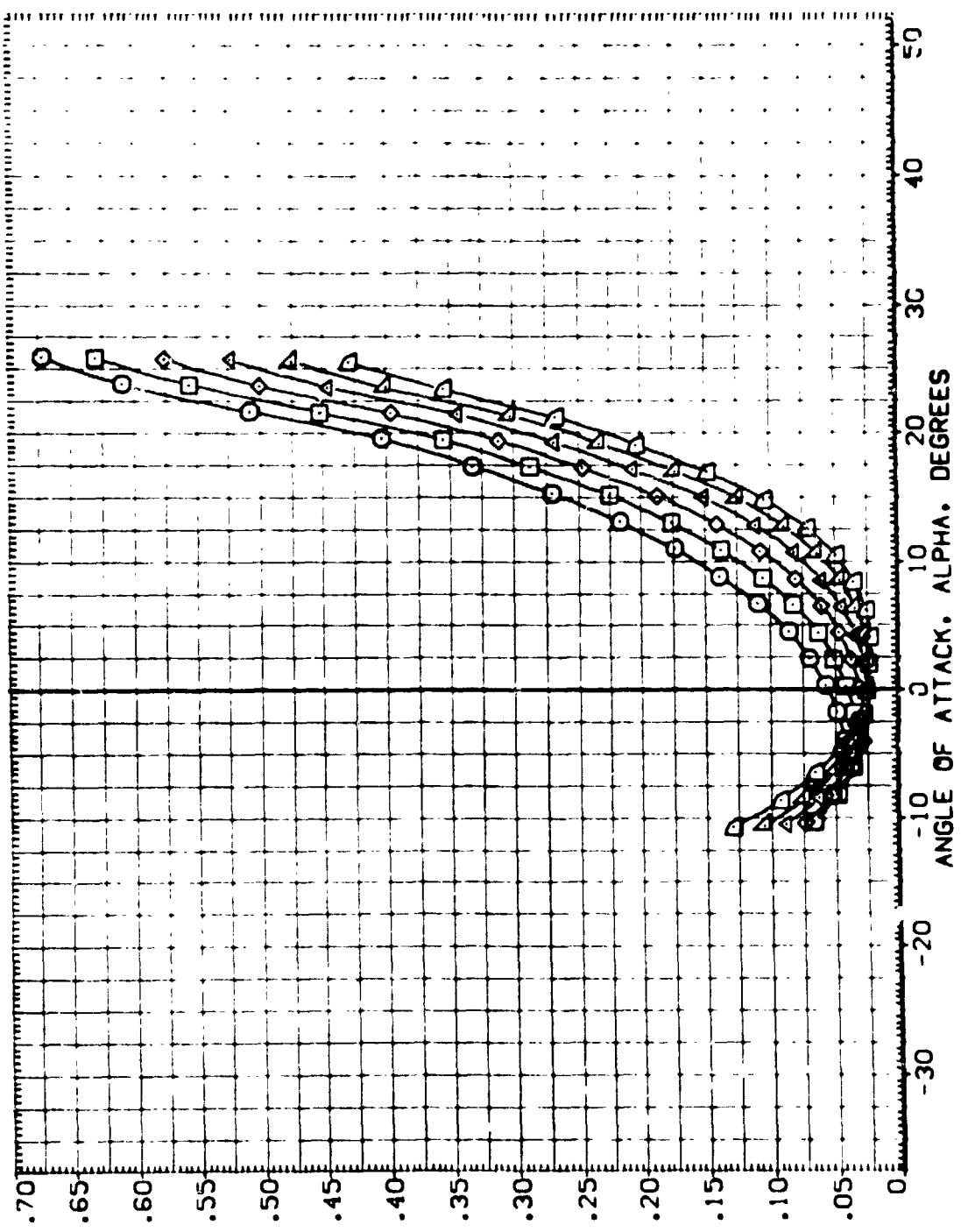


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8031)	0A119A B61C1F12P51V124E47V1SR15X29	20.000	.000	25.000	.000	SREF 2630.0100 50.FT
(AF8049)	0A119A B61C1F12P51V124E47V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8025)	0A119A B61C1F12P51V124E47V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8034)	0A119A B61C1F12P51V124E47V1SR15X29	5.000	.000	25.000	.000	XMRP 1076.4600 INCHES
(AF8041)	0A119A B61C1F12P51V124E47V1SR15X29	.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8032)	0A119A B61C1F12P51V124E47V1SR15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

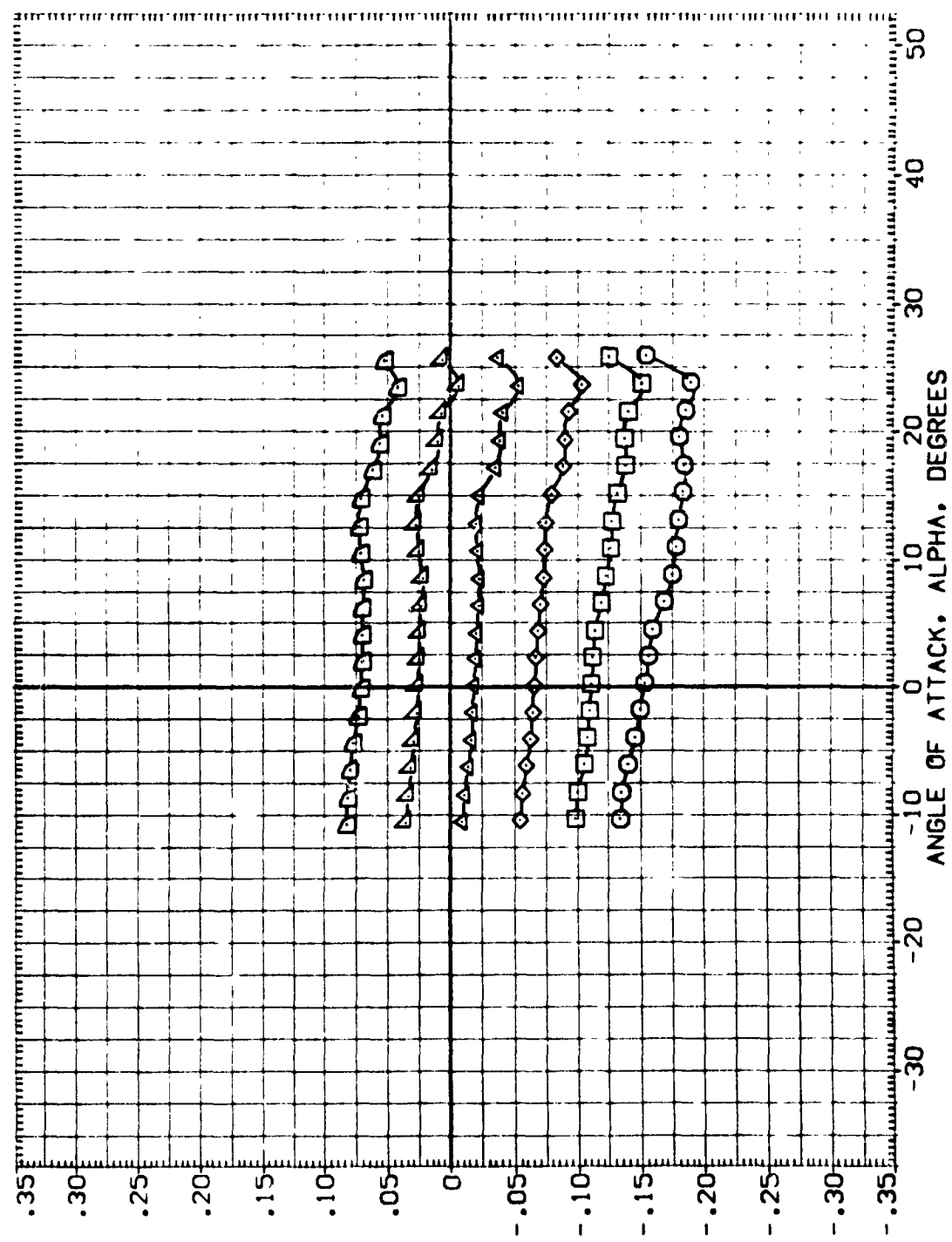


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AIRLON	REFERENCE INFORMATION
{ AF8051 }	DA119A B61C1F12P51V124E47V1SR15X29	20.000	.000	25.000	.000	SREF 2680.0100 SQ.FT.
{ AF8049 }	DA119A B61C1F12P51V124E47V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
{ AF8025 }	DA119A B61C1F12P51V124E47V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
{ AF8034 }	DA119A B61C1F12P51V124E47V1SR15X29	5.000	.000	25.000	.000	XPRP 1076.1800 INCHES
{ AF8041 }	DA119A B61C1F12P51V124E47V1SR15X29	.000	.000	25.000	.000	YPRP .0000 INCHES
{ AF8032 }	DA119A B61C1F12P51V124E47V1SR15X29	-5.000	.000	25.000	.000	ZPRP 375.0000 INCHES
						SCALE .0405

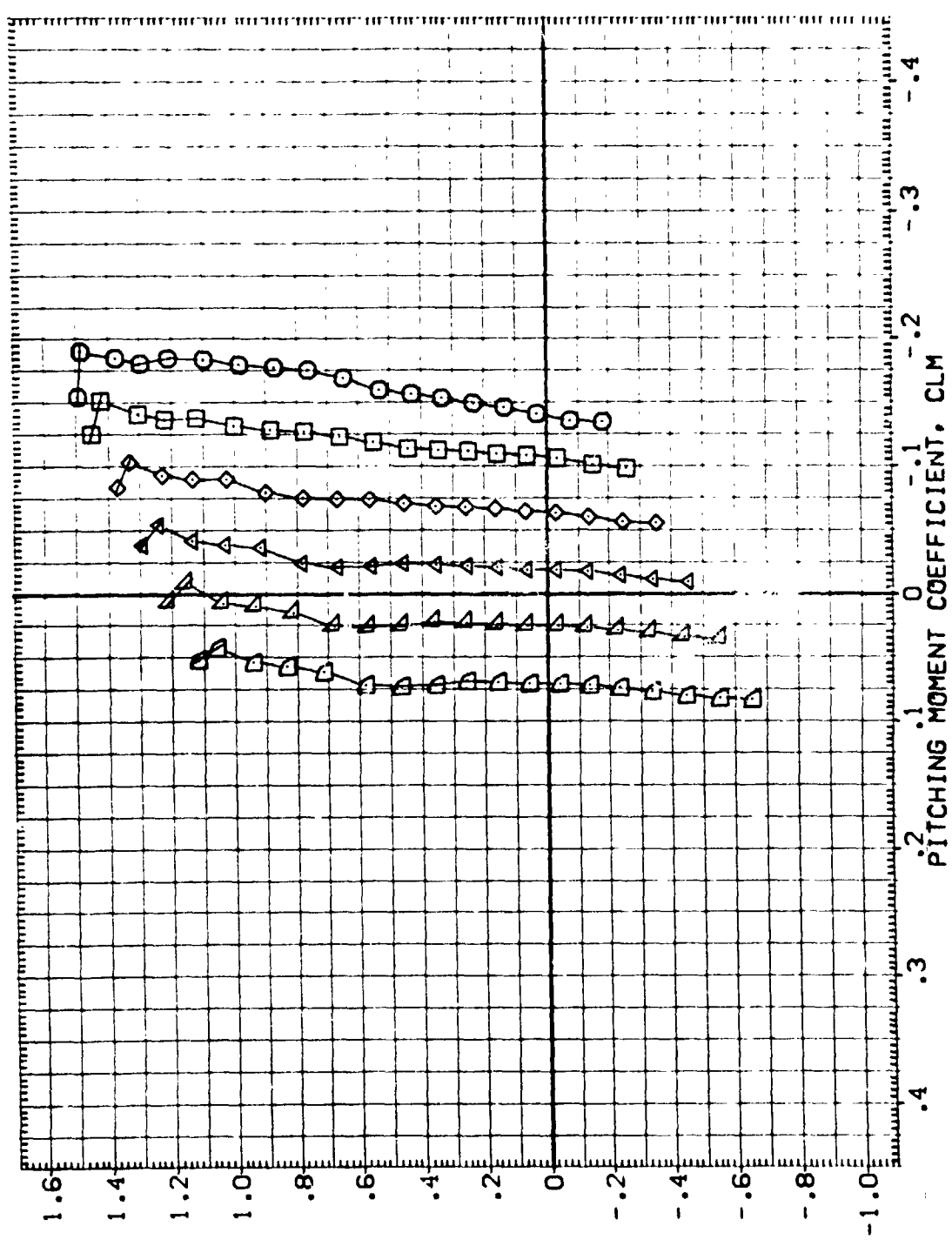


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

(M)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	DOE LAP	SPDRX	ALLWON	REFERENCE	DESCRIPTION
{AF8051}	DA119A B61C1 F124S1V124E47V19R15X29	20.000	.000	25.000	.000	265.0100	12.000
{AF8049}	DA119A B61C1 F124S1V124E47V19R15X29	15.000	.000	25.000	.000	474.3100	12.000
{AF8025}	DA119A B61C1 F124S1V124E47V19R15X29	10.000	.000	25.000	.000	936.0300	12.000
{AF8034}	DA119A B61C1 F124S1V124E47V19R15X29	5.000	.000	25.000	.000	1076.4800	12.000
{AF8041}	DA119A B61C1 F124S1V124E47V19R15X29	0.000	.000	25.000	.000	375.0000	12.000
{AF8032}	DA119A B61C1 F124S1V124E47V19R15X29	-5.000	.000	25.000	.000	SCALE	SCALE

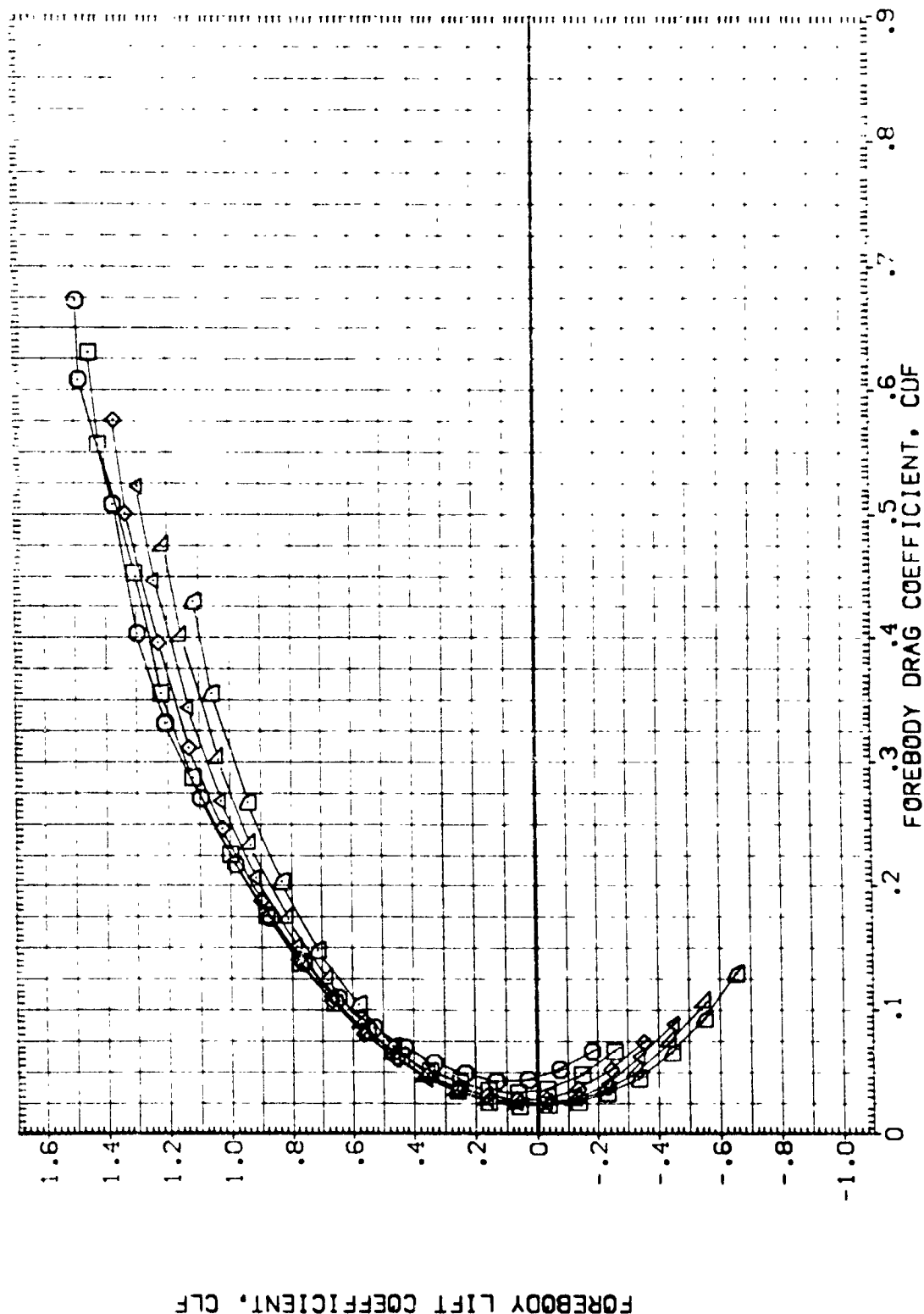


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8051)	0A119A B61C1F12751V124E47V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8049)	0A119A B61C1F12751V124E47V19R15X29	15.000	.000	23.000	.000	LREF 474.8100 INCHES
(AF8025)	0A119A B61C1F12751V124E47V19R15X29	10.000	.000	23.000	.000	BREF 936.6800 INCHES
(AF8034)	0A119A B61C1F12751V124E47V19R15X29	5.000	.000	23.000	.000	XMRP 1076.4800 INCHES
(AF8041)	0A119A B61C1F12751V124E47V19R15X29	.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8032)	0A119A B61C1F12751V124E47V19R15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

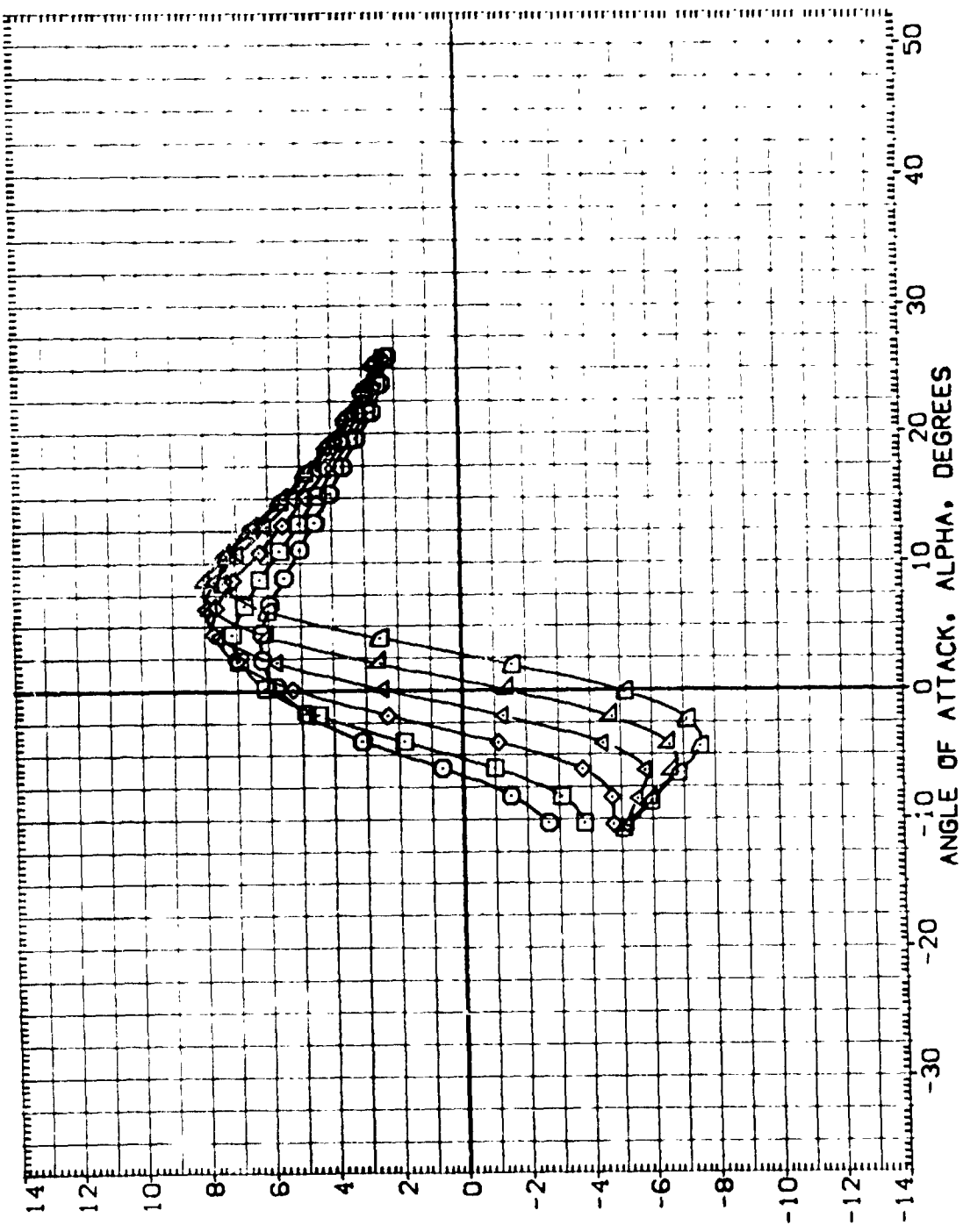


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

ELEVATION	OFF LOT	ROADWAY	AREA	PERCENTAGE
20.000	.000	.000	1890	3.78%
15.000	.000	.000	450	0.90%
10.000	.000	.000	1000	2.00%
5.000	.000	.000	1000	2.00%
-5.000	.000	.000	1000	2.00%
			TOTAL	10.68%
			ADJUSTED TOTAL	10.68%

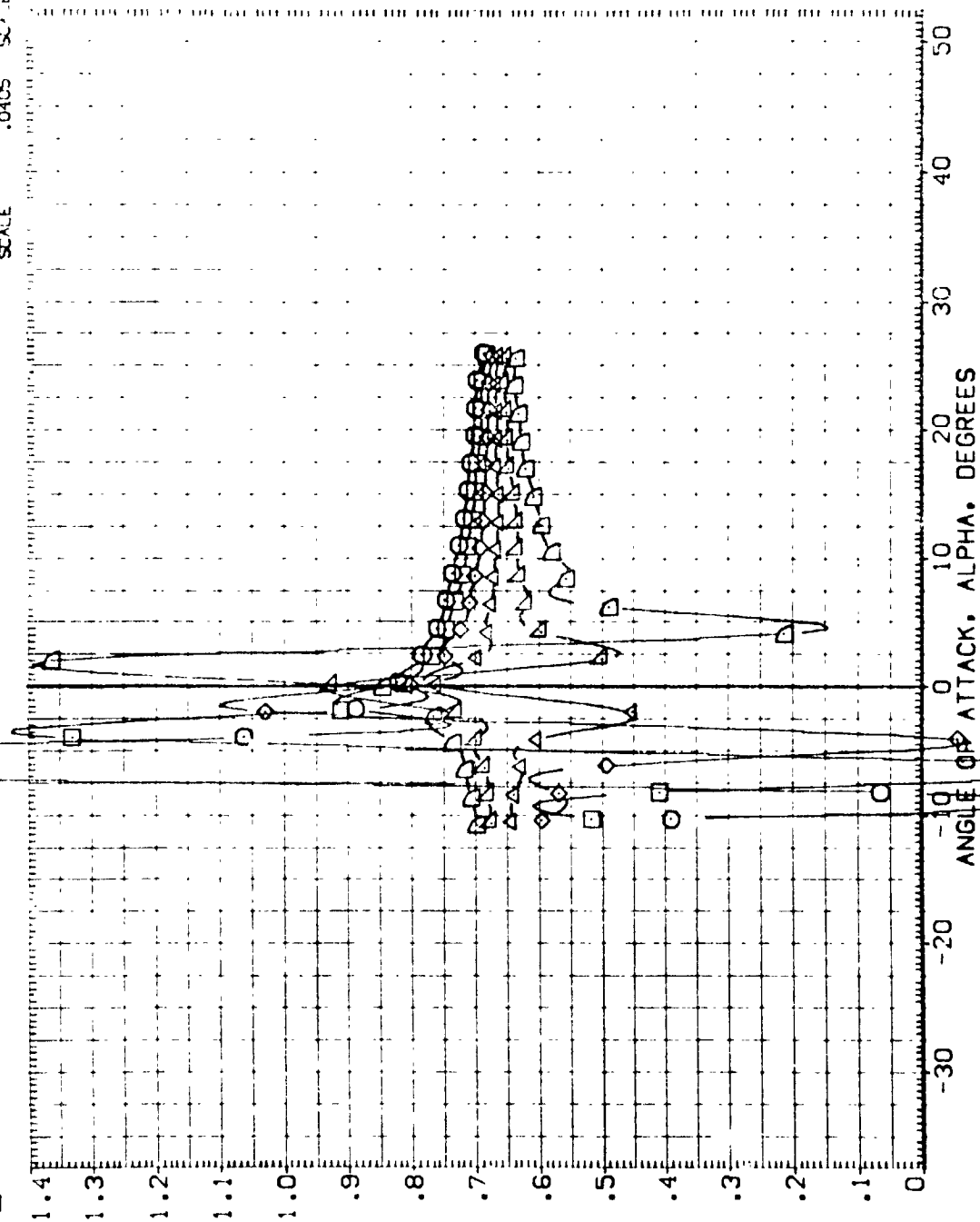


FIG 6 ELEVON EFFECTIVENESS - ELEVON E47 (POSITIVE ELEVON DEFLECTIONS)

$$C_A]_{MACH} = .26$$

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8041)	DA119A B61C1F12V51V124E47V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8026)	DA119A B61C1F12V51V124E47V1SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8018)	DA119A B61C1F12V51V124E47V1SR15X29	-15.000	.000	25.000	.000	BREF 536.8800 INCHES
(AF8017)	DA119A B61C1F12V51V124E47V1SR15X29	-20.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8011)	DA119A B61C1F12V51V124E47V1SR15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8005)	DA119A B61C1F12V51V124E47V1SR15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405 SCALE

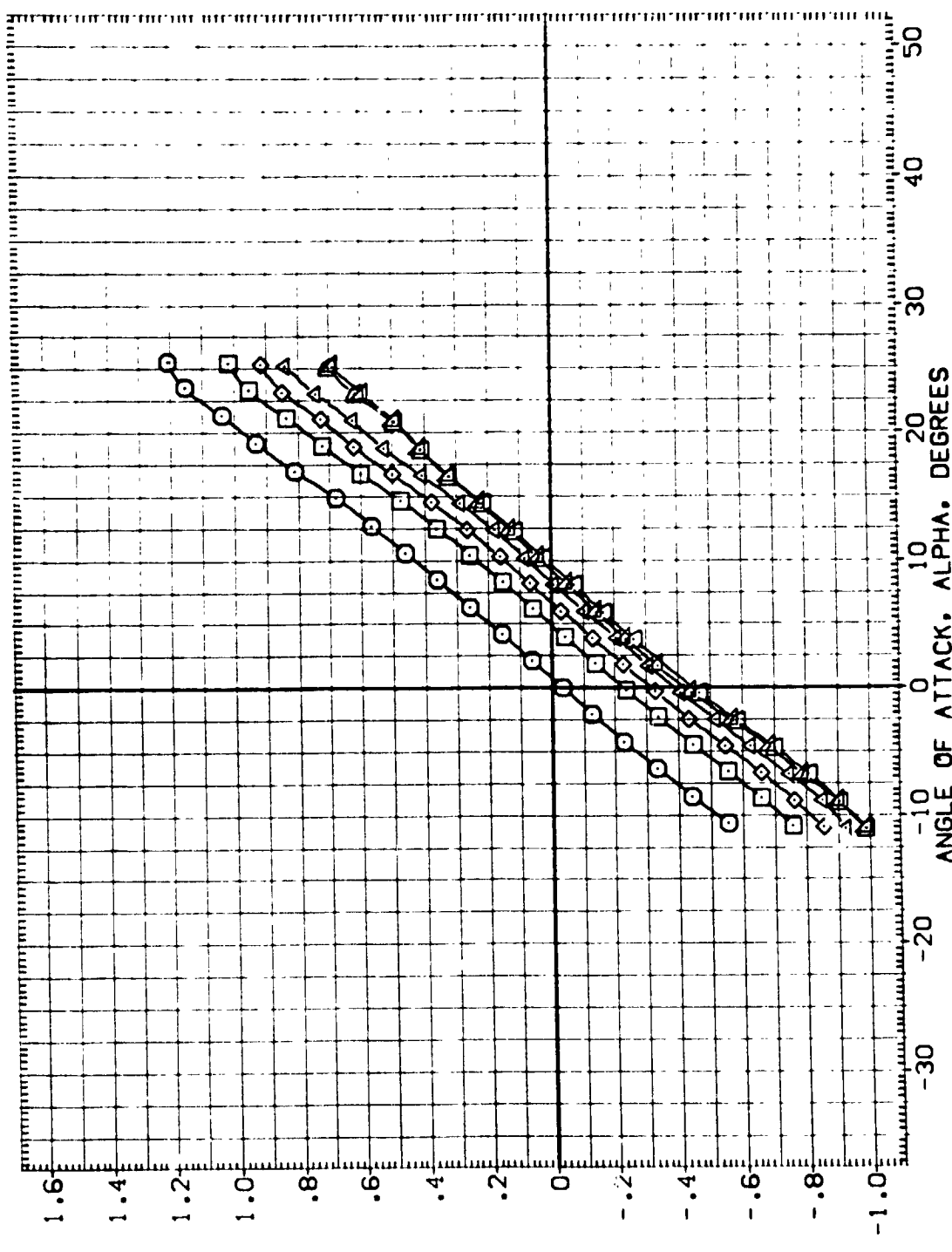


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AIRLON	REFERENCE INFORMATION
(AF6041)	0A119A 861C11F12451V124E47V19R15X29	.000	.000	25.000	.000	SREF 269C.0100 50.FT. INCHES
(AF6026)	0A119A 861C11F12451V124E47V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF6018)	0A119A 861C11F12451V124E47V19R15X29	-15.000	.000	25.000	.000	BREF 932.6800 INCHES
(AF6017)	0A119A 861C11F12451V124E47V19R15X29	-20.000	.000	25.000	.000	XMRP 107E.000 INCHES
(AF6011)	0A119A 861C11F12451V124E47V19R15X29	-30.000	.000	25.000	.000	YMRP 37E.000 INCHES
(AF6005)	0A119A 861C11F12451V124E47V19R15X29	-40.000	.000	25.000	.000	ZMRP 040S SCALE

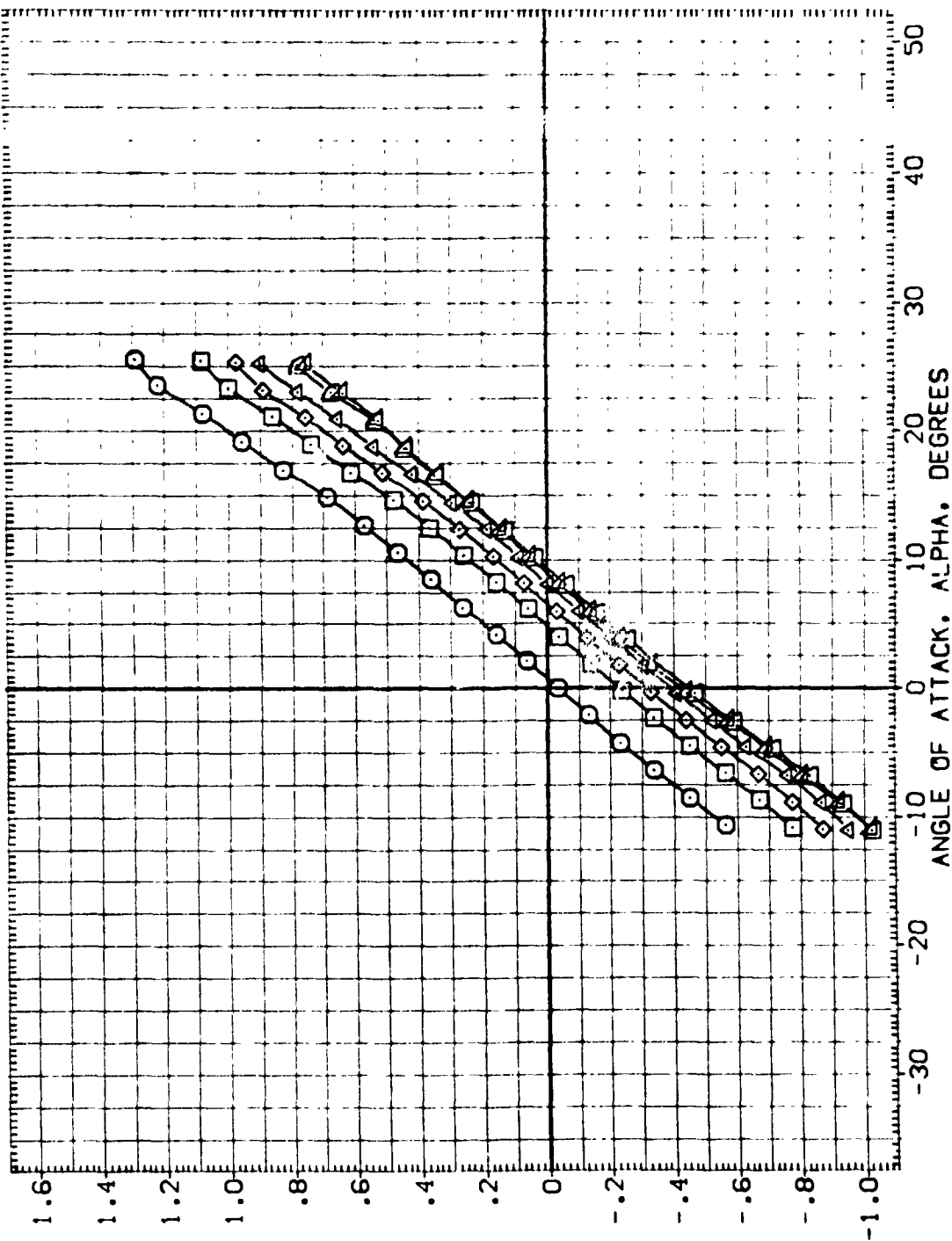


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BLUFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
(AF8041)	0A119A 661C11F1251V124E47V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8026)	0A119A 661C11F1251V124E47V19R15X29	-10.000	.000	25.000	.000	LREF 471.8100 INCHES
(AF8018)	0A119A 661C11F1251V124E47V19R15X29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8017)	0A119A 661C11F1251V124E47V19R15X29	-20.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8011)	0A119A 661C11F1251V124E47V19R15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8005)	0A119A 661C11F1251V124E47V19R15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

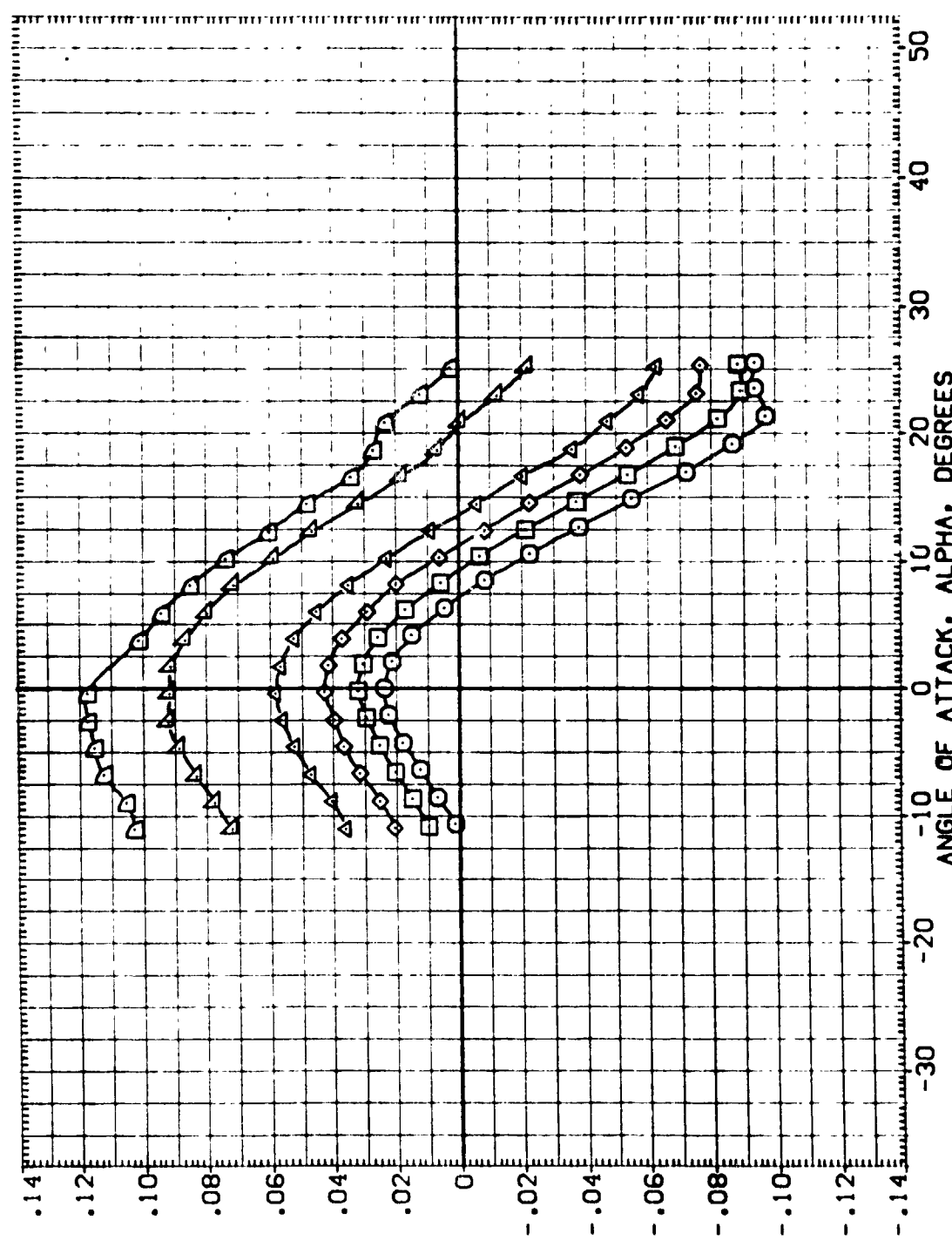


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

CAJ MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILERON	REFERENCE INFORMATION
(AF8041)	CA1119A BSIC11F12V51V124E47V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 50.0 FT.
(AF8026)	CA1119A BSIC11F12V51V124E47V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8018)	CA1119A BSIC11F12V51V124E47V19R15X29	-15.000	.000	25.000	.000	BREF 926.5800 INCHES
(AF8017)	CA1119A BSIC11F12V51V124E47V19R15X29	-20.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8011)	CA1119A BSIC11F12V51V124E47V19R15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8005)	CA1119A BSIC11F12V51V124E47V19R15X29	-40.000	.000	25.000	.000	ZMRP .0405 INCHES
						SCALE

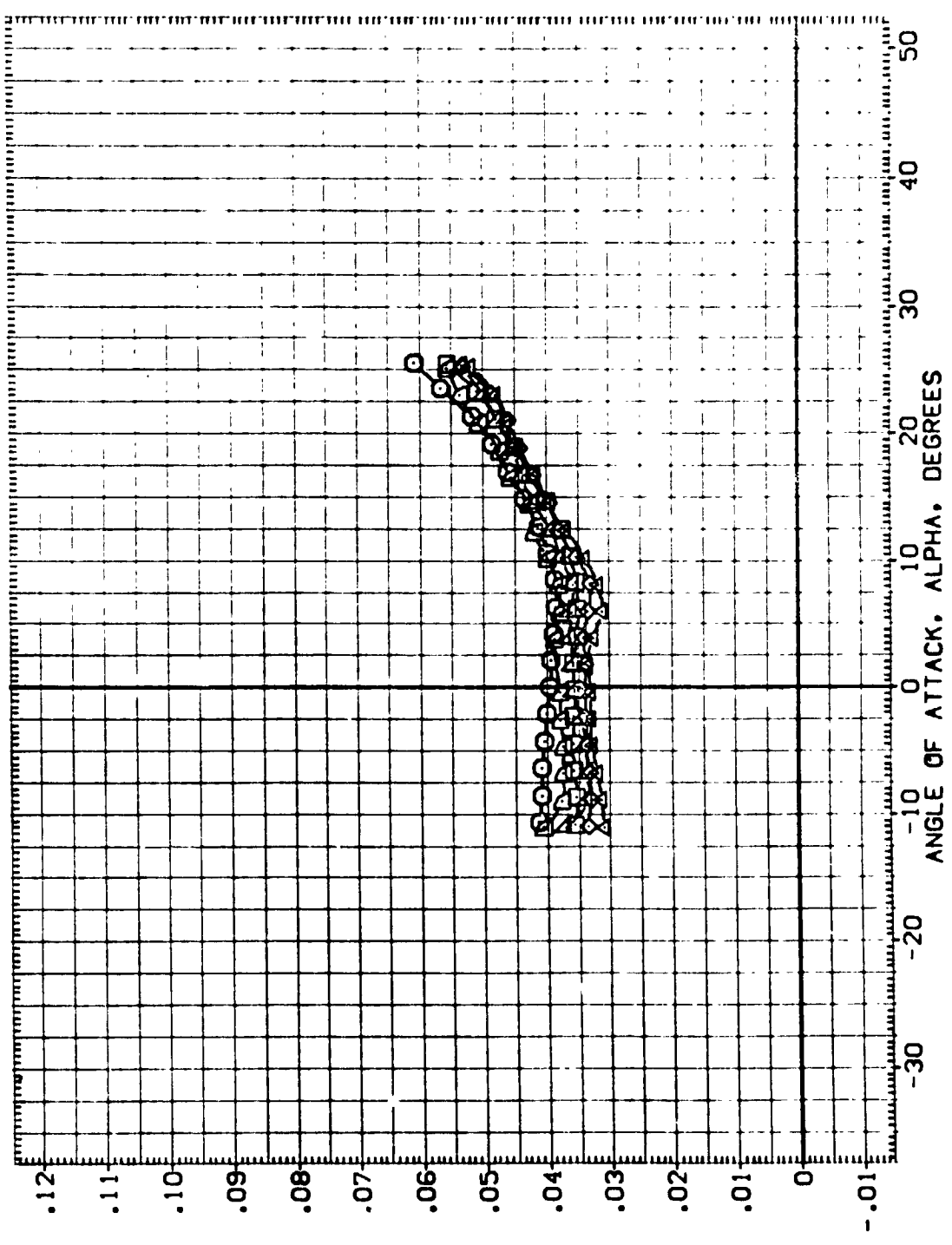


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

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ORIGINAL PAGE IS POOR

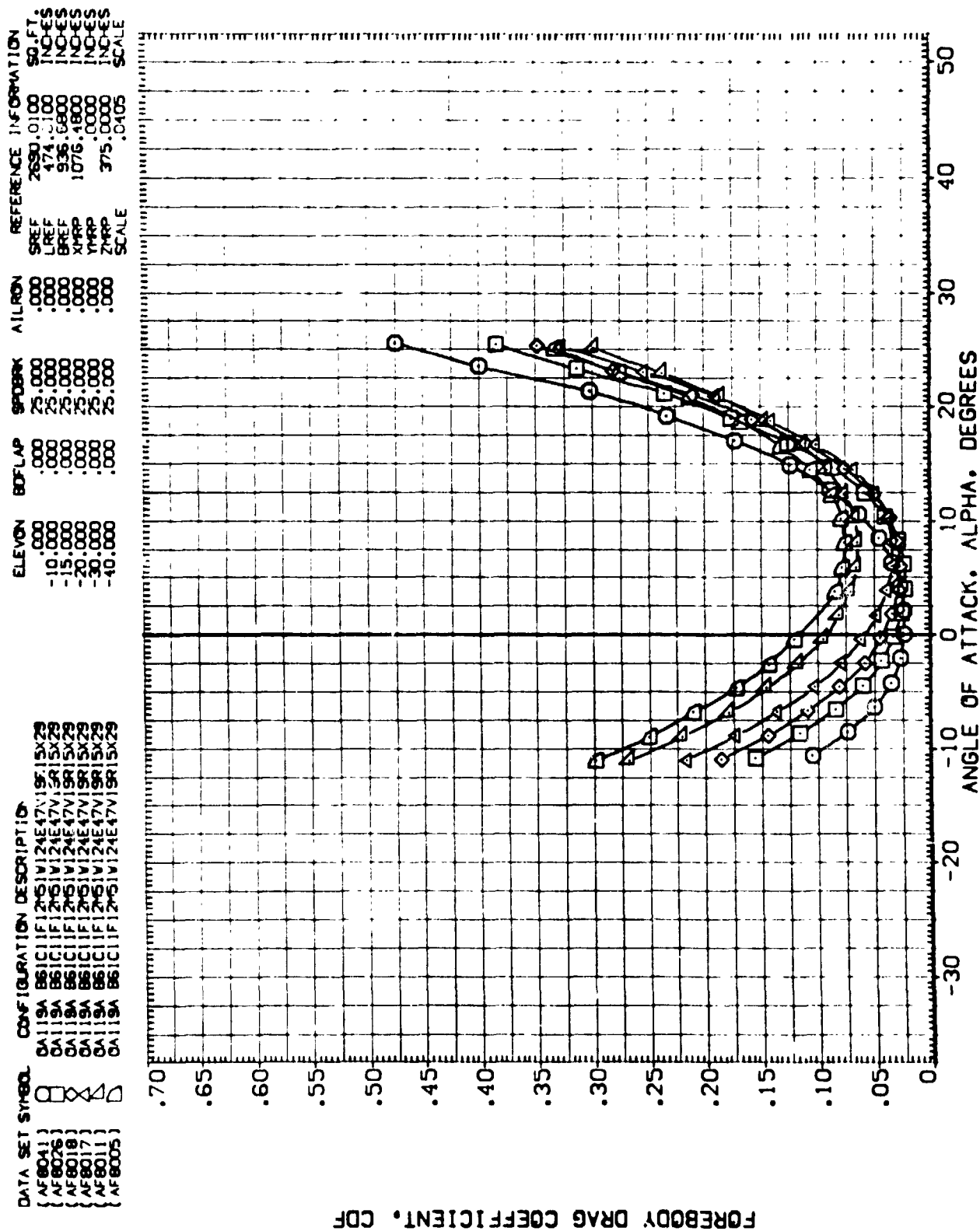


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
{AFB041}	□	0A11SA 08C1IF 2V51V124E47V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{AFB026}	×	0A11SA 08C1IF 2V51V124E47V1SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
{AFB018}	△	0A11SA 08C1IF 2V51V124E47V1SR15X29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
{AFB017}	◇	0A11SA 08C1IF 2V51V124E47V1SR15X29	-20.000	.000	25.000	.000	XMRP 1076.4600 INCHES
{AFB011}	□	0A11SA 08C1IF 2V51V124E47V1SR15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
{AFB005}	□	0A11SA 08C1IF 2V51V124E47V1SR15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
							SCALE .0405

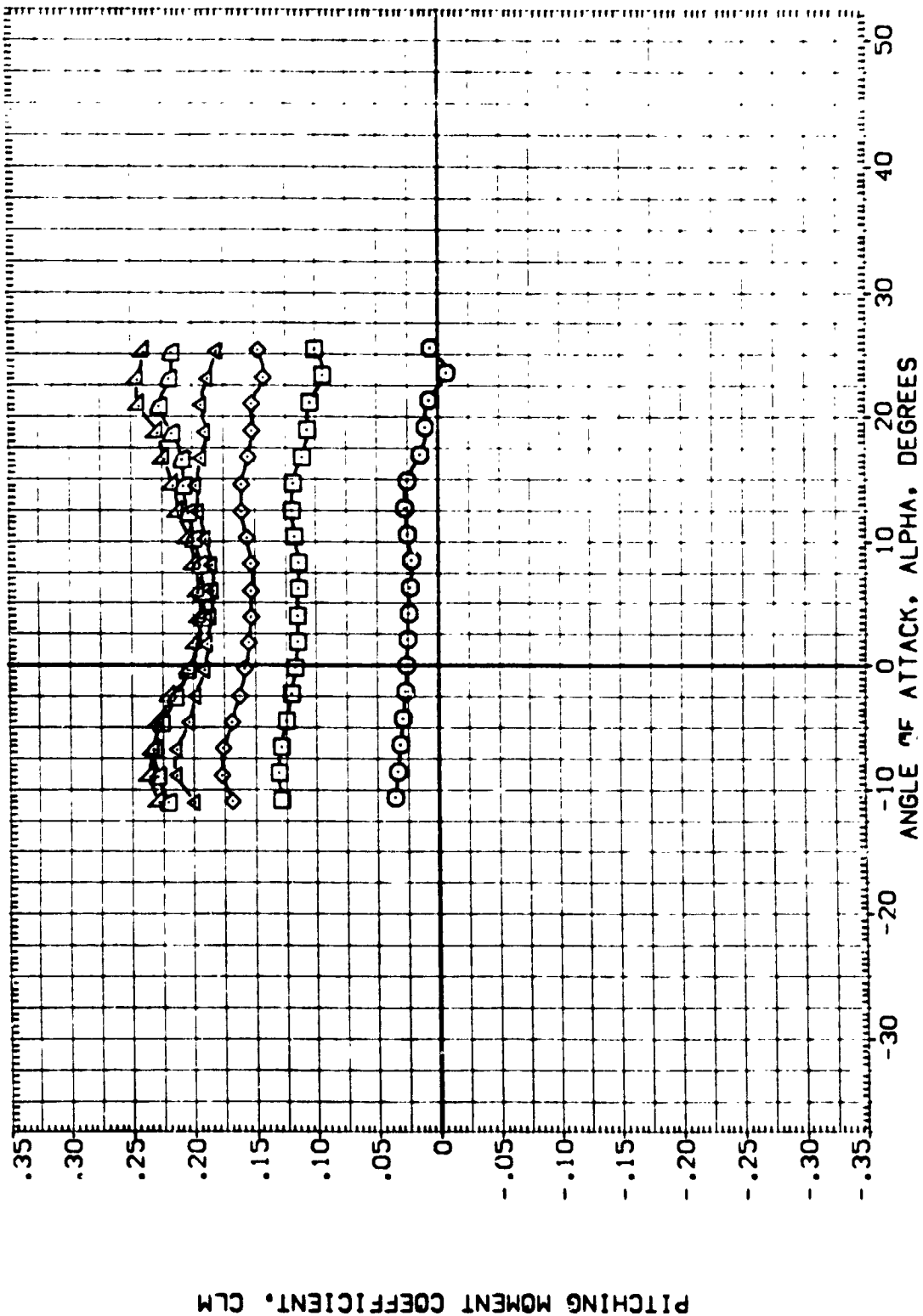


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILERON	REFERENCE INFORMATION
[AF8041]	0A119A BS1C1F 245 V124E47V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SO.FT.
[AF8026]	0A119A BS1C1F 245 V124E47V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 L.CES
[AF8018]	0A119A BS1C1F 245 V124E47V19R15X29	-15.000	.000	25.000	.000	BREF 936.6800 B.CES
[AF8017]	0A119A BS1C1F 245 V124E47V19R15X29	-20.000	.000	25.000	.000	AREF 1076.4800 A.CES
[AF8011]	0A119A BS1C1F 245 V124E47V19R15X29	-30.000	.000	25.000	.000	YREF 375.0000 Y.CES
[AF8005]	0A119A BS1C1F 245 V124E47V19R15X29	-40.000	.000	25.000	.000	ZREF 375.0000 Z.CES
						SCALE .0A05

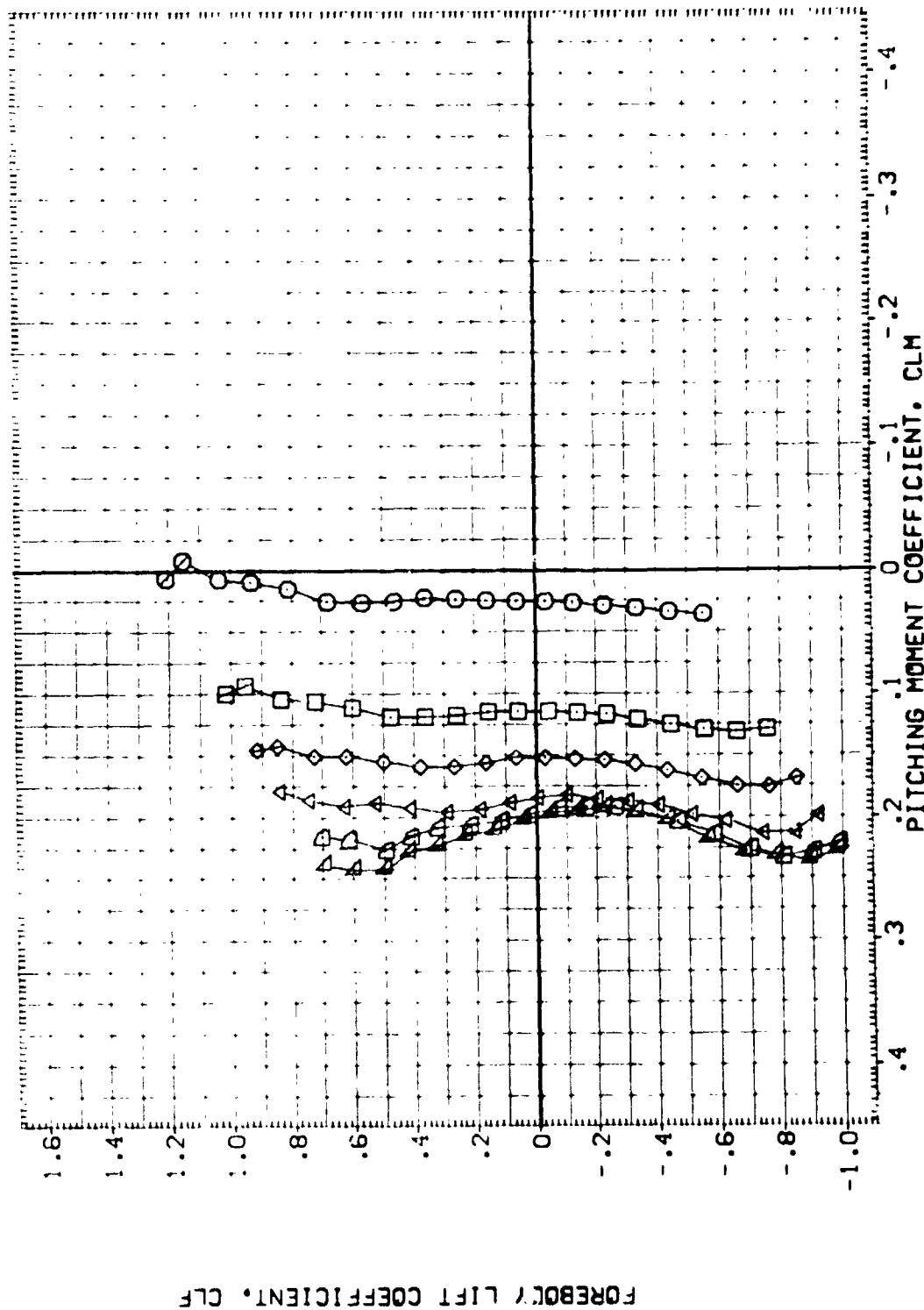


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .25

DATA SET	DESCRIPTION	SCALE	SPARK	REFERENCE	FUNCTION
(AF8041)	SA 35101F	100	1000	100	100
(AF8026)	SA 35101F	100	1000	100	100
(AF8018)	SA 35101F	100	1000	100	100
(AF8017)	SA 35101F	100	1000	100	100
(AF8011)	SA 35101F	100	1000	100	100
(AF8005)	SA 35101F	100	1000	100	100

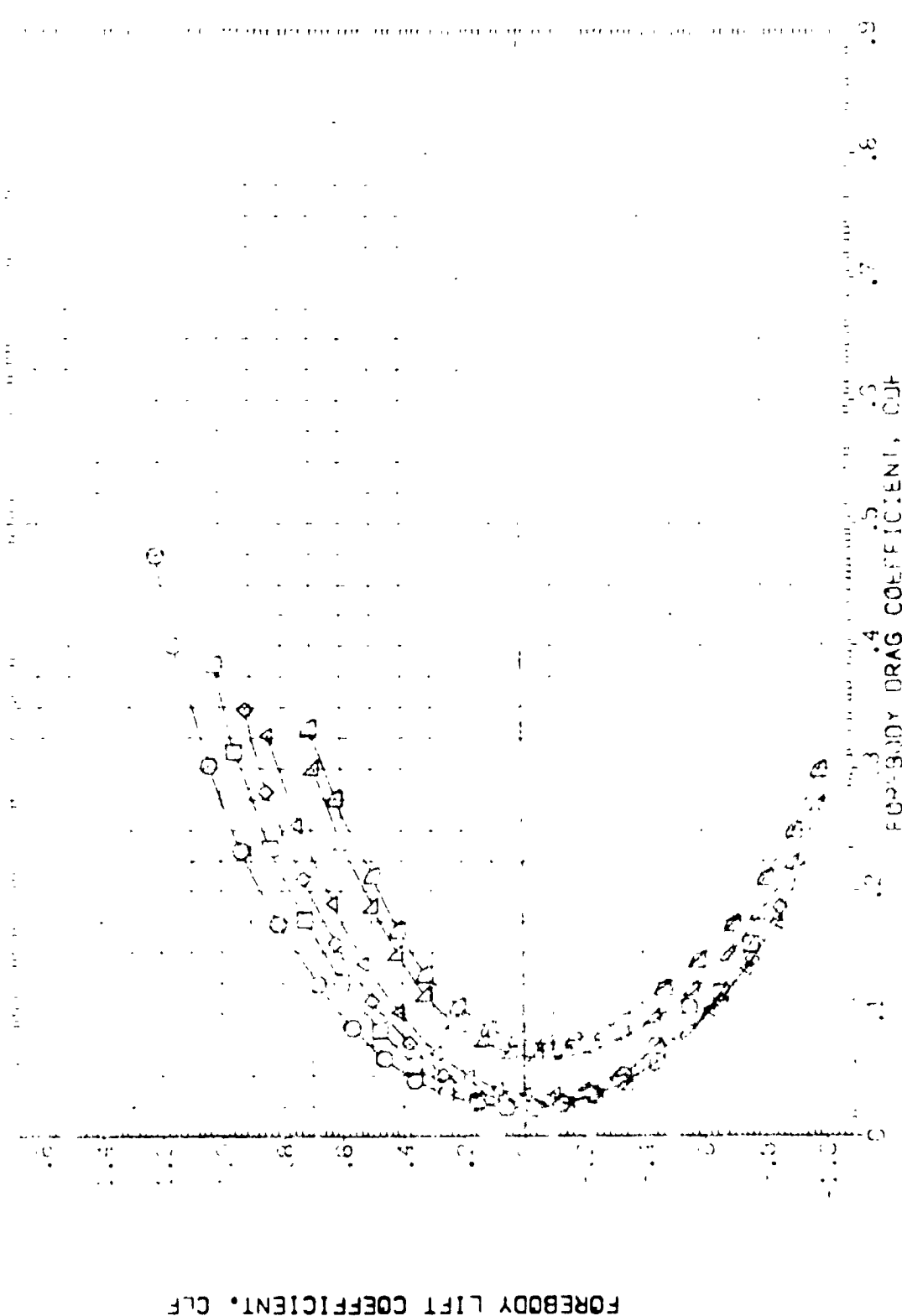


FIG 7 CLF vs CD - ELEVON E47 (NEGATIVE ELEVON DEFLECTION)

(A)MACH = 0.05 38

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPORBK	AIRLON	REFERENCE INFORMATION
(AF8041)	Q	BA119A B61C11F1275 V124E47V SR15X29	.000	.000	25.000	.000	SREF 2630.0100 SO.FT.
(AF8076)	Q	BA119A B61C11F1275 V124E47V SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8018)	Q	BA119A B61C11F1275 V124E47V SR15X29	-15.000	.000	25.000	.000	BREF 936.8800 INCHES
(AF8017)	Q	BA119A B61C11F1275 V124E47V SR15X29	-20.000	.000	25.000	.000	XTRP 1076.000 INCHES
(AF8011)	Q	BA119A B61C11F1275 V124E47V SR15X29	-30.000	.000	25.000	.000	YTRP 375.0000 INCHES
(AF8005)	Q	BA119A B61C11F1275 V124E47V SR15X29	-40.000	.000	25.000	.000	ZTRP SCALE

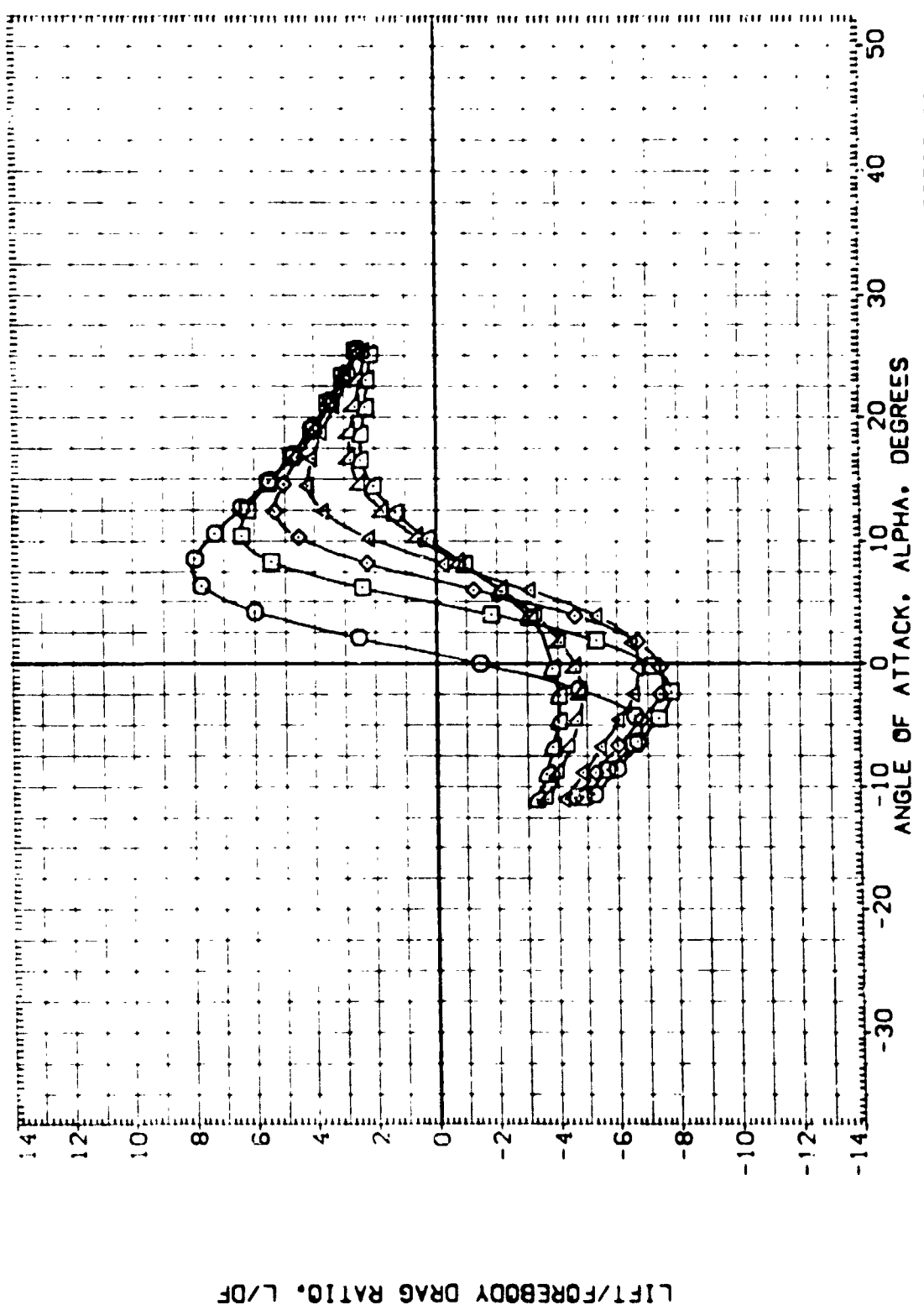


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 [AF8041] 01119A BSIC11F 2V61V124E47V1 SR15X28
 [AF8026] 01119A BSIC11F 2V61V124E47V1 SR15X28
 [AF8018] 01119A BSIC11F 2V61V124E47V1 SR15X28
 [AF8017] 01119A BSIC11F 2V61V124E47V1 SR15X28
 [AF8011] 01119A BSIC11F 2V61V124E47V1 SR15X28
 [AF8005] 01119A BSIC11F 2V61V124E47V1 SR15X28

REFERENCE INFORMATION
 SREF 2690.0100 SQ.FT.
 LREF 474.8100 1-INCHES
 BREF 936.6800 INCHES
 YMRP 1076.1800 INCHES
 ZMRP 375.0000 INCHES
 SCALE .0405 SCALE

BD LAP .000
 SPOBOK 25.000
 AILRON .000

ELEVON
 L10 .000
 L13 .000
 L20 .000
 L30 .000
 L40 .000

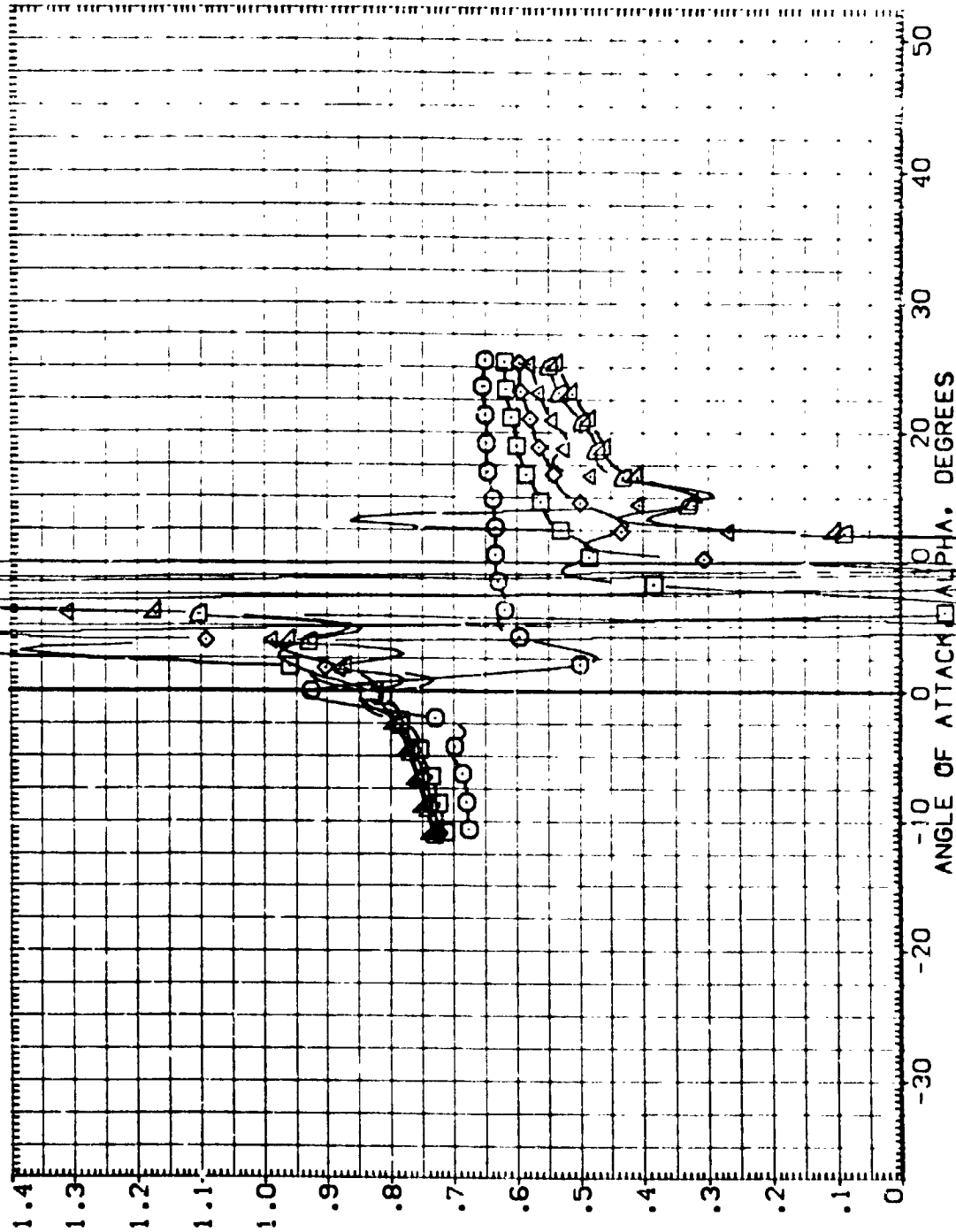


FIG 7 ELEVON EFFECTIVENESS - ELEVON E47 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
(AF8052)	GA119A B61C11F24E48V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SO.FT.
(AF8050)	GA119A B61C11F24E48V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8074)	GA119A B61C11F24E48V19R15X29	10.000	.000	25.000	.000	BREF 936.6900 INCHES
(AF8036)	GA119A B61C11F24E48V19R15X29	5.000	.000	25.000	.000	KMRP 1076.1800 INCHES
(AF8004)	GA119A B61C11F24E48V19R15X29	.000	.000	25.000	.000	YMRP 375.0000 INCHES
(AF8033)	GA119A B61C11F24E48V19R15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0035

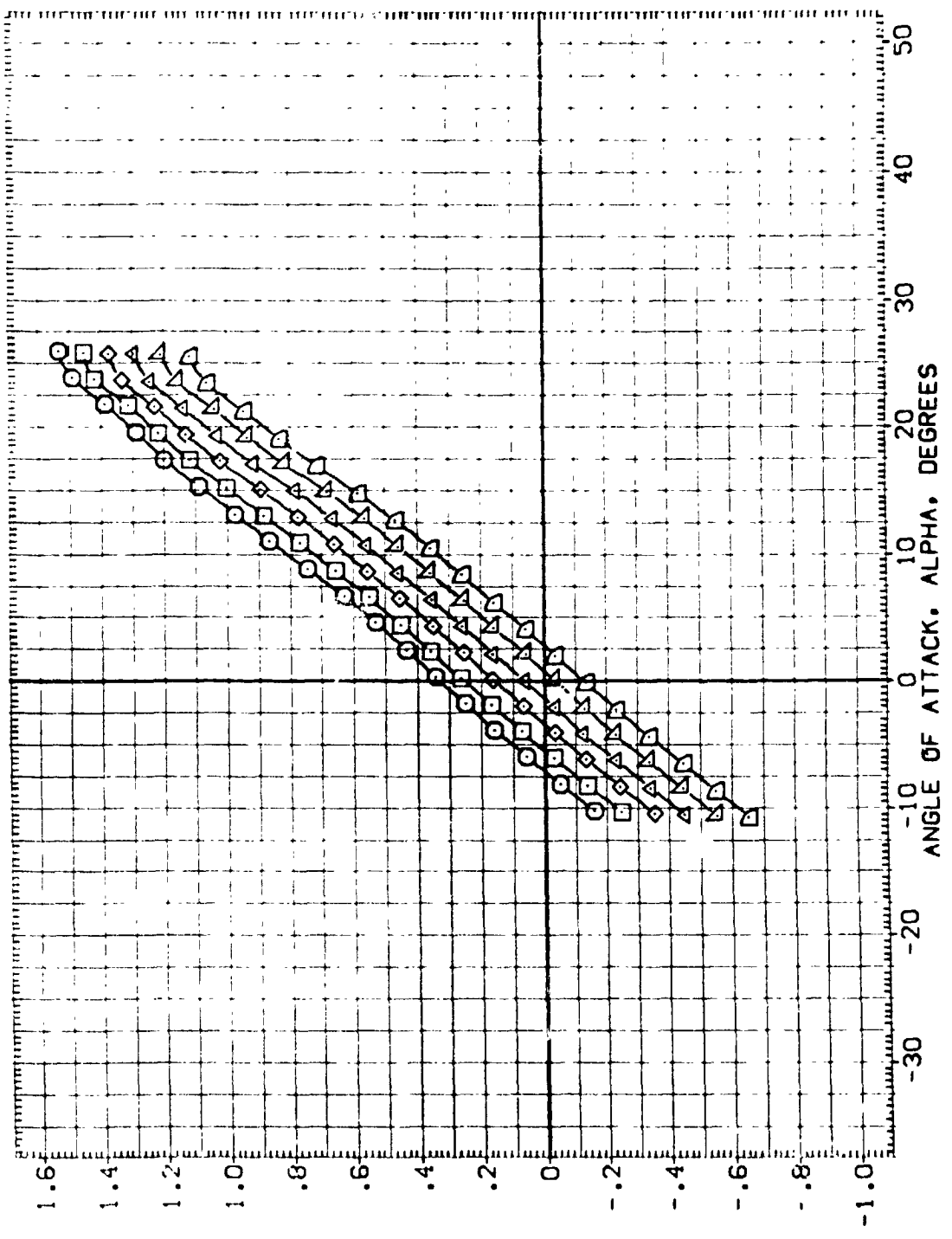


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRPK	ALLRQ	REFERENCE INFORMATION
(AF8052)	DA119A B61C1F12G5IV124E48V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8050)	DA119A B61C1F12G5IV124E48V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	DA119A B61C1F12G5IV124E48V19R15X29	10.000	.000	25.000	.000	BREF 935.8800 INCHES
(AF8035)	DA119A B61C1F12G5IV124E48V19R15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8004)	DA119A B61C1F12G5IV124E48V19R15X29	.000	.000	25.000	.000	YMRP 375.0000 INCHES
(AF8033)	DA119A B61C1F12G5IV124E48V19R15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

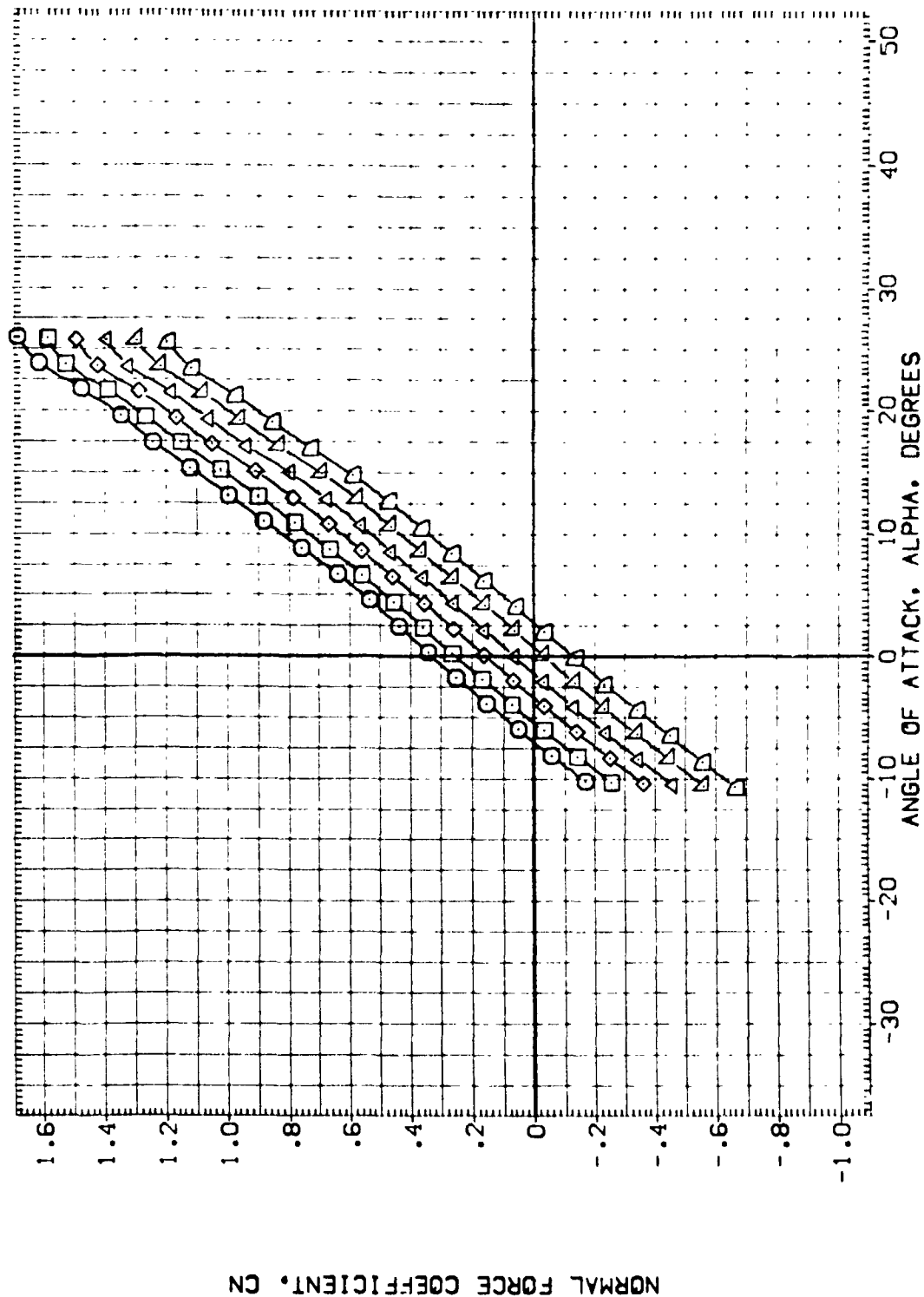


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION & DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
(AF8052)	0A119A 86 C11F 245 #124E18V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8050)	0A119A 86 C11F 245 #124E18V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	0A119A 86 C11F 245 #124E18V19R15X29	10.000	.000	25.000	.000	BREF 936.0000 INCHES
(AF8035)	0A119A 86 C11F 245 #124E18V19R15X29	5.000	.000	25.000	.000	WREF 1076.0000 INCHES
(AF8004)	0A119A 86 C11F 245 #124E18V19R15X29	.000	.000	25.000	.000	WREF 375.0000 INCHES
(AF8033)	0A119A 86 C11F 245 #124E18V19R15X29	-5.000	.000	25.000	.000	SCALE 1.000

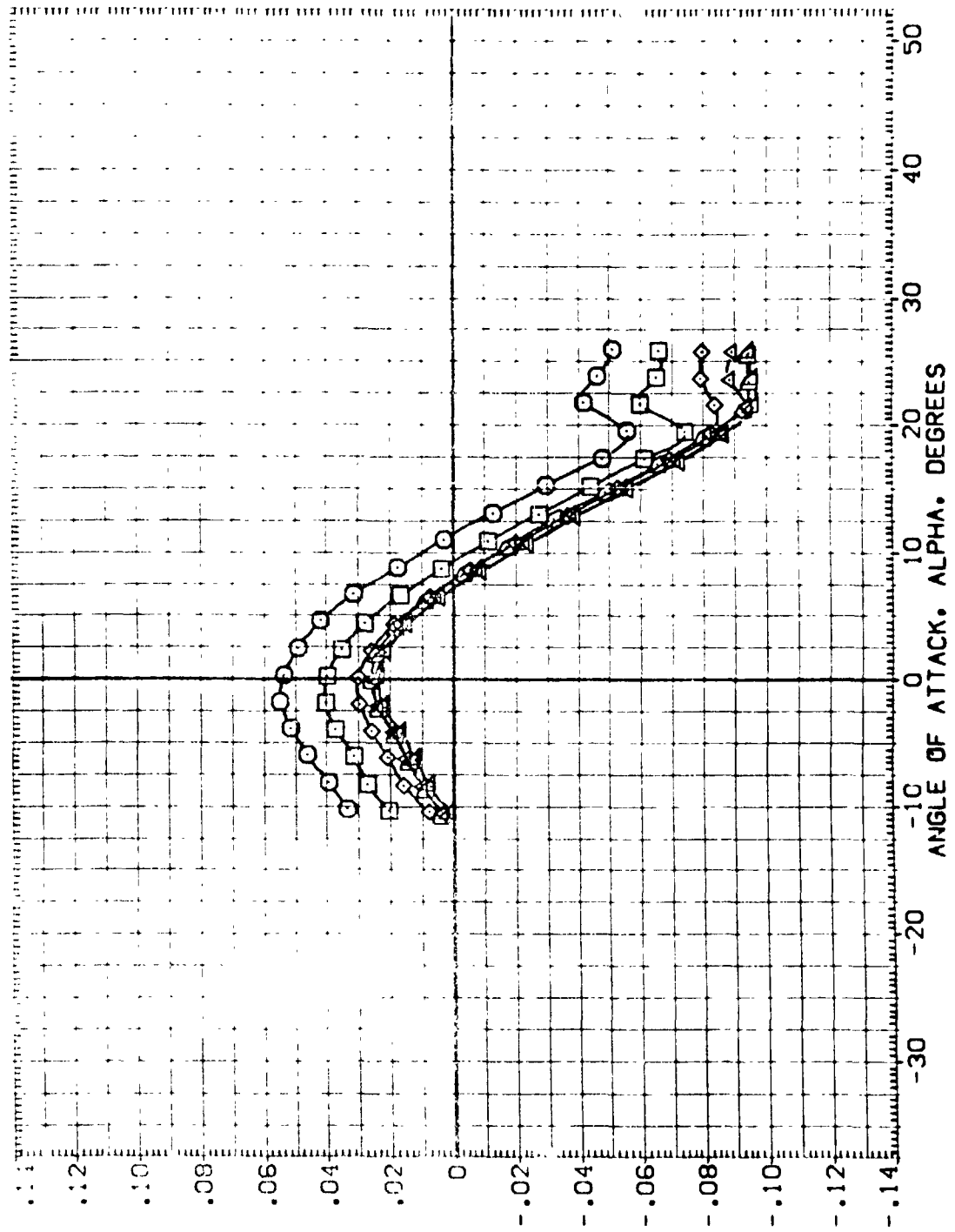


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRX	AIRLON	REFERENCE INFORMATION
(AF8052)	0A119A B61C11F12P51V124E48V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8050)	0A119A B61C11F12P51V124E48V19R15X29	15.000	.000	25.000	.000	LREF 474.6100 100.FT.
(AF8024)	0A119A B61C11F12P51V124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 100.FT.
(AF8036)	0A119A B61C11F12P51V124E48V19R15X29	5.000	.000	25.000	.000	XMRP 1076.4800 100.FT.
(AF8004)	0A119A B61C11F12P51V124E48V19R15X29	.000	.000	25.000	.000	YMRP .0000 100.FT.
(AF8033)	0A119A B61C11F12P51V124E48V19R15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 100.FT.
						SCALE .0405

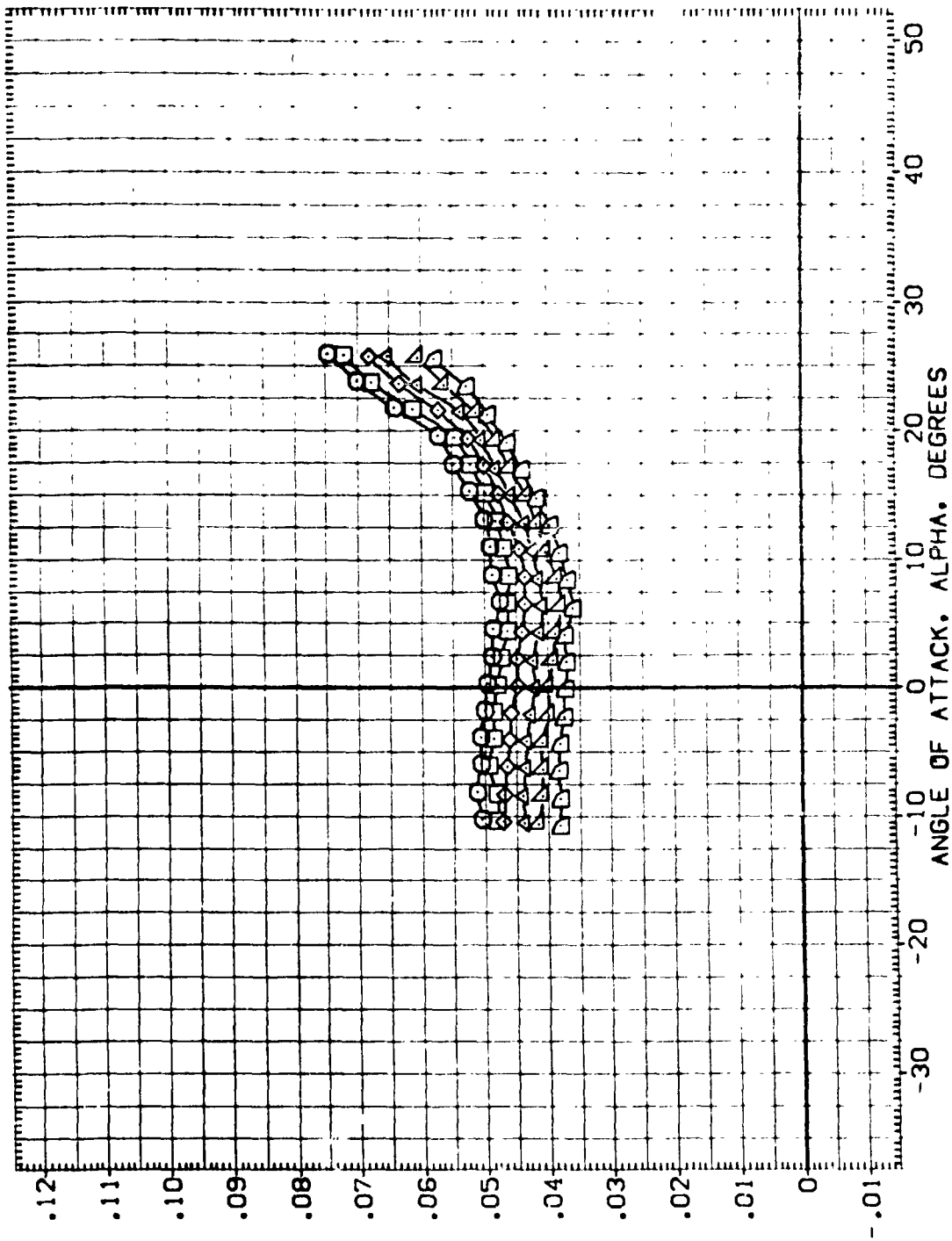


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	FLAP	SPDRK	ATLRN	REFERENCE INFORMATION
(AF8052)	0A119A B6C1F1 2-5 V124E18V19815X29	20.000	.000	25.000	.000	SREF 2690 0.100 50. FT.
(AF8050)	0A119A B6C1F1 2-5 V124E18V19815X29	15.000	.000	25.000	.000	LREF 474 0.100 INCHES
(AF8024)	0A119A B6C1F1 2-5 V124E18V19815X29	10.000	.000	25.000	.000	BREF 936 0.000 INCHES
(AF8005)	0A119A B6C1F1 2-5 V124E18V19815X29	5.000	.000	25.000	.000	XMRP 1076 0.000 INCHES
(AF8004)	0A119A B6C1F1 2-5 V124E18V19815X29	.000	.000	25.000	.000	YMRP 375 0.000 INCHES
(AF8033)	0A119A B6C1F1 2-5 V124E18V19815X29	-5.000	.000	25.000	.000	SCALE 2105

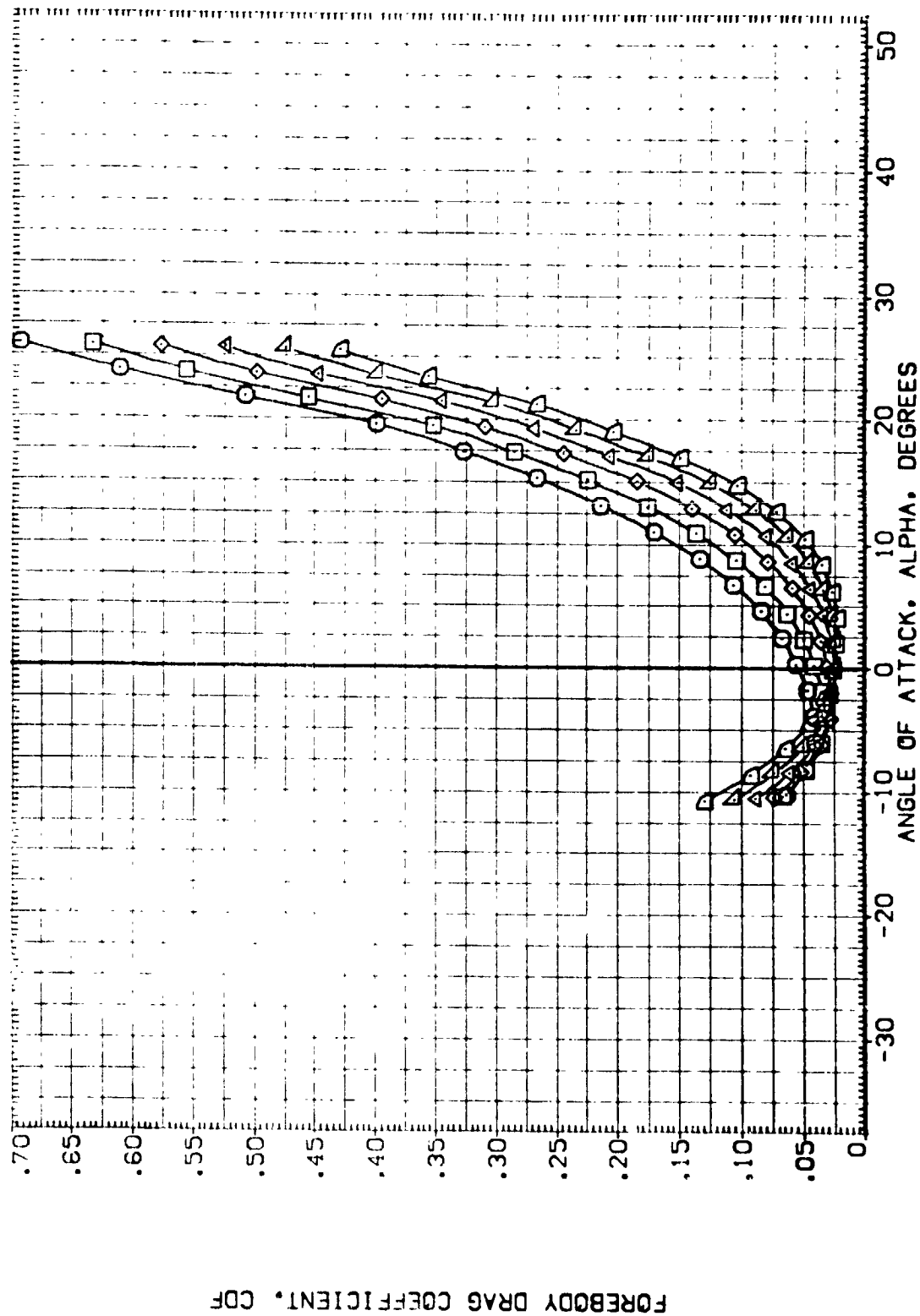


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SP0BRK	AIRLON	REFERENCE INFORMATION
{ AF8052 }	0A119A 861C1F12V51V124E48V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{ AF8050 }	0A119A 861C1F12V51V124E48V19R15X29	15.070	.000	25.000	.000	LREF 474.8100 INCHES
{ AF8024 }	0A119A 861C1F12V51V124E48V19R15X29	10.000	.000	25.000	.000	BREF 536.6800 INCHES
{ AF8033 }	0A119A 861C1F12V51V124E48V19R15X29	5.000	.000	25.000	.000	YMRP 1076.4800 INCHES
{ AF8004 }	0A119A 861C1F12V51V124E48V19R15X29	.000	.000	25.000	.000	ZMRP .0000 INCHES
{ AF8033 }	0A119A 861C1F12V51V124E48V19R15X29	-5.000	.000	25.000	.000	SCALE .0405 INCHES

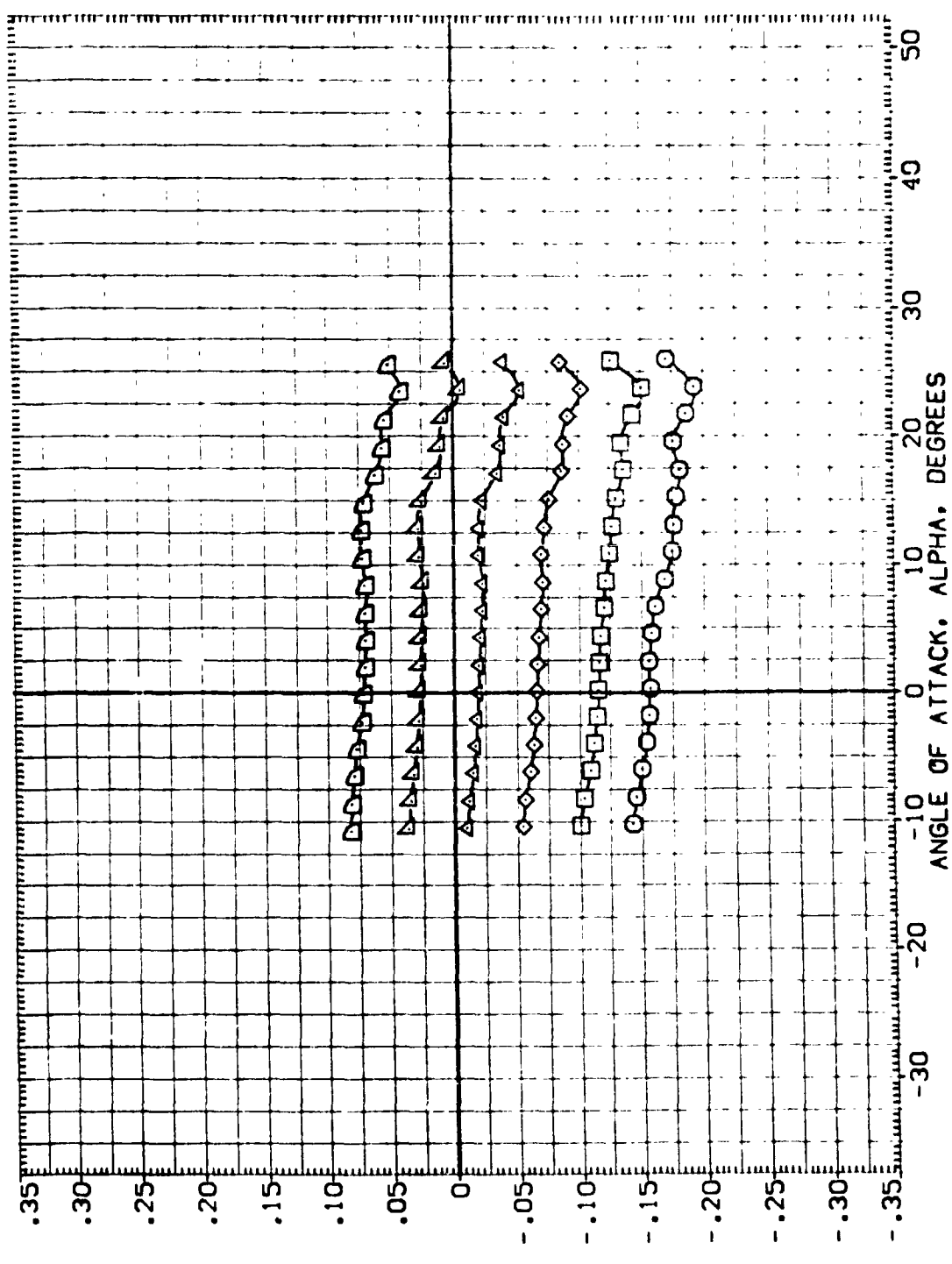


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	REFLAP	SPD BRK	AILRON	REFERENCE INFORMATION	SQ. FT.
(AF8052)	○	0A119A B61C1 F12751V 24E48V1SR15X29	20.000	.000	25.000	.000	SREF	265.0100
(AF8050)	○	0A119A B61C1 F12751V 24E48V1SR15X29	15.000	.000	25.000	.000	LREF	47.8100
(AF8024)	○	0A119A B61C1 F12751V 24E48V1SR15X29	10.000	.000	25.000	.000	BREF	93.5800
(AF8035)	○	0A119A B61C1 F12751V 24E48V1SR15X29	5.000	.000	25.000	.000	XMRP	1076.4800
(AF8004)	○	0A119A B61C1 F12751V 24E48V1SR15X29	.000	.000	25.000	.000	YMRP	.0000
(AF8003)	○	0A119A B61C1 F12751V 24E48V1SR15X29	-5.000	.000	25.000	.000	ZMRP	375.0000
							SCALE	.0405

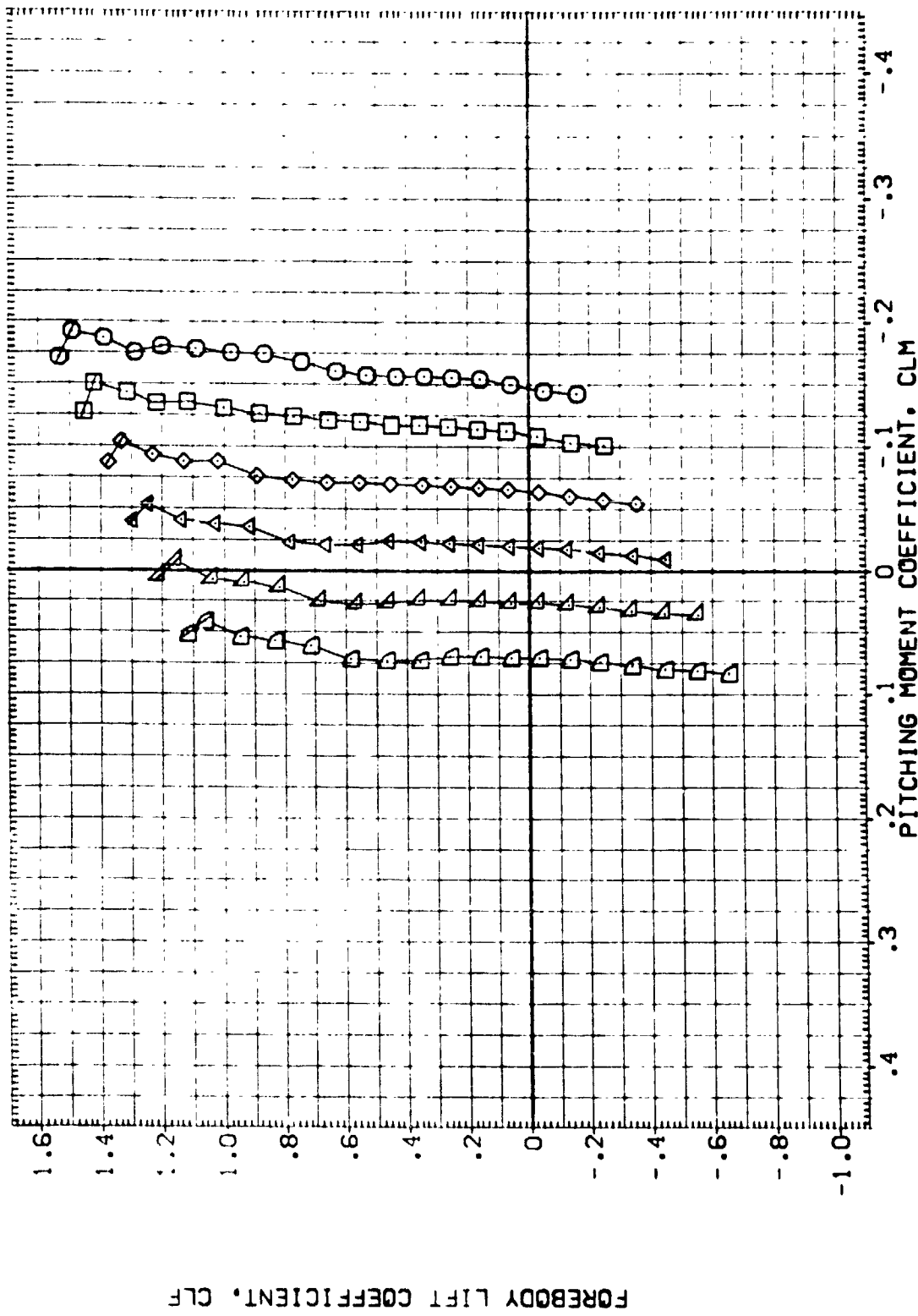


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILERON	REFERENCE INFORMATION	SO.FT.
(AF8052)	GA119A BS1C1IF12G51V124E48V1SR15X29	20.000	.000	25.000	.000	SREF 2690.0100	INCHES
(AF8050)	GA119A BS1C1IF12G51V124E48V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100	INCHES
(AF8024)	GA119A BS1C1IF12G51V124E48V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800	INCHES
(AF8035)	GA119A BS1C1IF12G51V124E48V1SR15X29	5.000	.000	25.000	.000	XMRP 1076.4800	INCHES
(AF8004)	GA119A BS1C1IF12G51V124E48V1SR15X29	.000	.000	25.000	.000	ZMRP .0000	INCHES
(AF8033)	GA119A BS1C1IF12G51V124E48V1SR15X29	-5.000	.000	25.000	.000	ZMRP 375.0000	INCHES
						SCALE .0405	SCALE

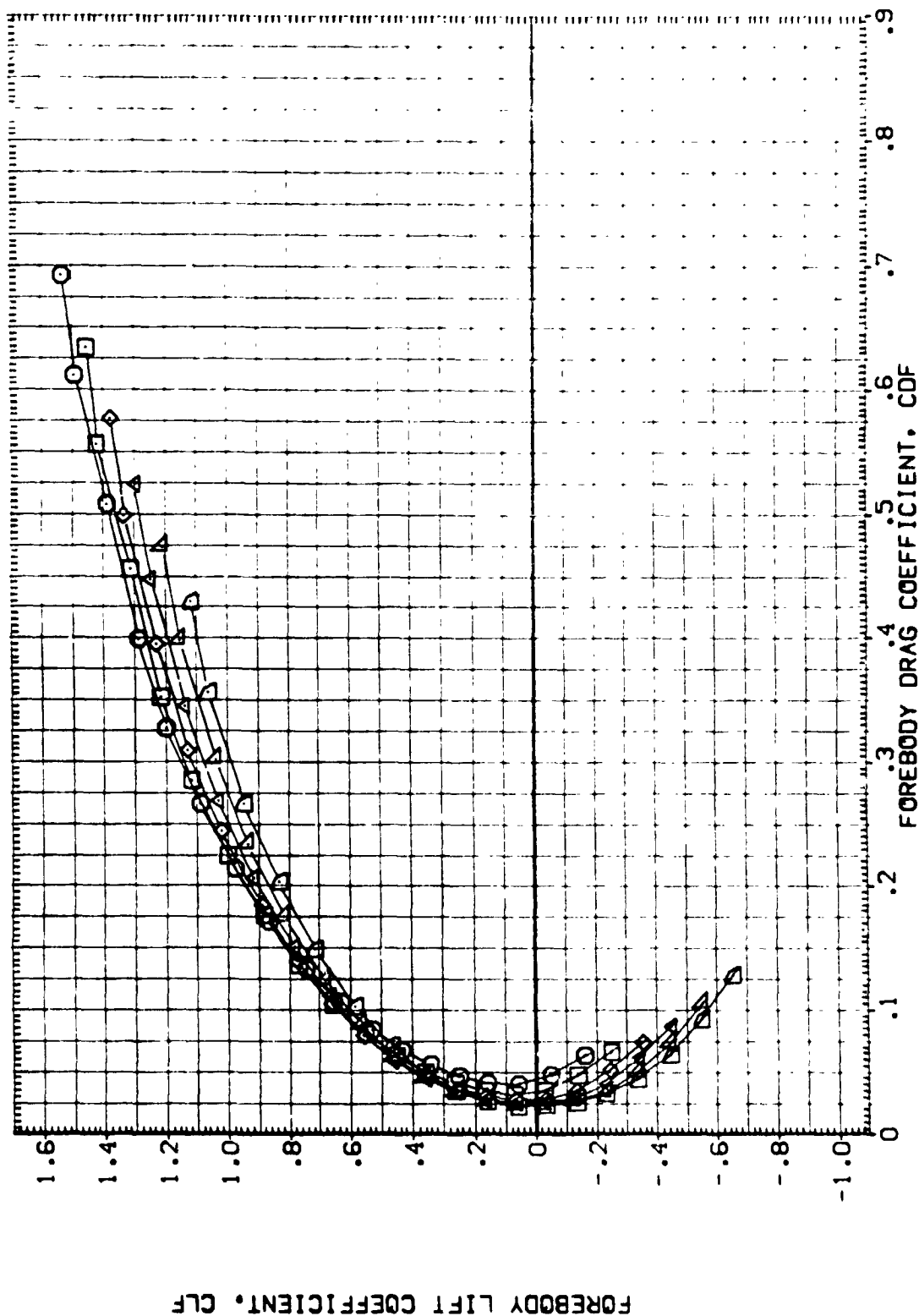


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
{AF8052}	CA119A B61C1 F12-51V124E48V1SR15X29	20.000	.000	25.000	.000	SREF 2690.0100 50.00 INCHES
{AF8050}	CA119A B61C1 F12-51V124E48V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF8074}	CA119A B61C1 F12-51V124E48V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
{AF8075}	CA119A B61C1 F12-51V124E48V1SR15X29	5.000	.000	25.000	.000	XMRP 1076.1800 INCHES
{AF8004}	CA119A B61C1 F12-51V124E48V1SR15X29	.000	.000	25.000	.000	YMRP .0000 INCHES
{AF8033}	CA119A B61C1 F12-51V124E48V1SR15X29	-5.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0495

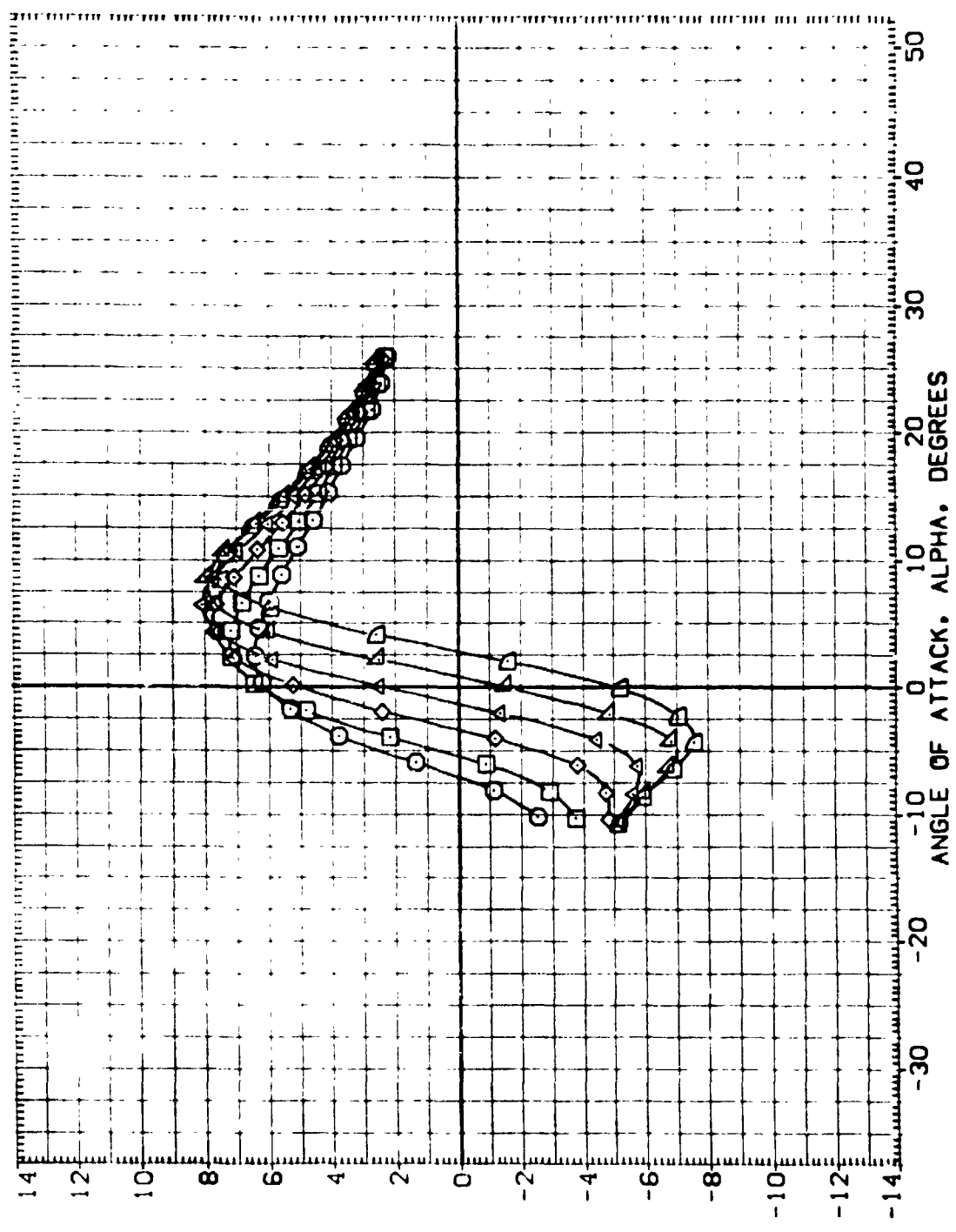


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

{AF8032}	Q119A	88	C	I	F	2	5	V	2	4	E	4	8	V	9	1	5	X	2	3
{AF8033}	Q119A	88	C	I	F	2	5	V	2	4	E	4	8	V	9	1	5	X	2	3
{AF8034}	Q119A	88	C	I	F	2	5	V	2	4	E	4	8	V	9	1	5	X	2	3
{AF8035}	Q119A	88	C	I	F	2	5	V	2	4	E	4	8	V	9	1	5	X	2	3
{AF8036}	Q119A	88	C	I	F	2	5	V	2	4	E	4	8	V	9	1	5	X	2	3
{AF8037}	Q119A	88	C	I	F	2	5	V	2	4	E	4	8	V	9	1	5	X	2	3

ELEVON

20.000	.000	SPDBRK	.000	AILRON	.000
15.000	.000	25.000	.000	.000	.000
10.000	.000	25.000	.000	.000	.000
5.000	.000	25.000	.000	.000	.000
-5.000	.000	25.000	.000	.000	.000

BOFLAP

.000	.000
.000	.000
.000	.000
.000	.000
.000	.000

REFERENCE INFORMATION

SREF	2690.0100	50.00
LREF	474.8100	INCHES
BREF	536.6800	INCHES
XREF	1076.4800	INCHES
YREF	375.0000	INCHES
ZREF	375.0000	INCHES
SCALE	.0405	SCALE

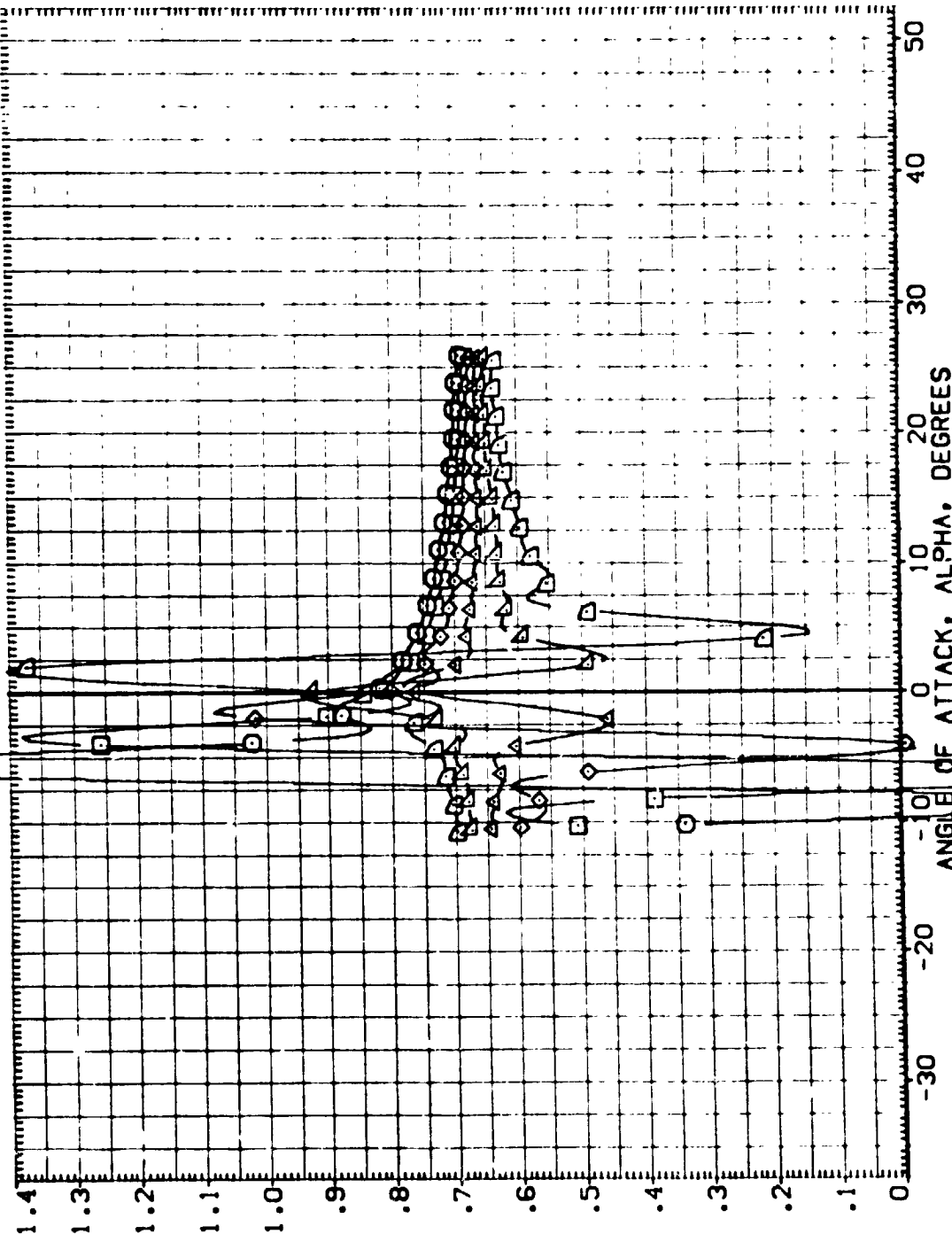


FIG 8 ELEVON EFFECTIVENESS - ELEVON E48 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	ALLRON	REFERENCE INFORMATION
{AF8004}	DA119A B61C1 F1245 V124E48V1 SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{AF8007}	DA119A B61C1 F1245 V124E48V1 SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF8019}	DA119A B61C1 F1245 V124E48V1 SR15X29	-15.000	.000	25.000	.000	BREF 936.6900 INCHES
{AF8016}	DA119A B61C1 F1245 V124E48V1 SR15X29	-20.000	.000	25.000	.000	XREF 1076.4800 INCHES
{AF8012}	DA119A B61C1 F1245 V124E48V1 SR15X29	-30.000	.000	25.000	.000	YREF 375.0000 INCHES
{AF8006}	DA119A B61C1 F1245 V124E48V1 SR15X29	-40.000	.000	25.000	.000	ZREF 375.0000 INCHES
						SCALE .0405

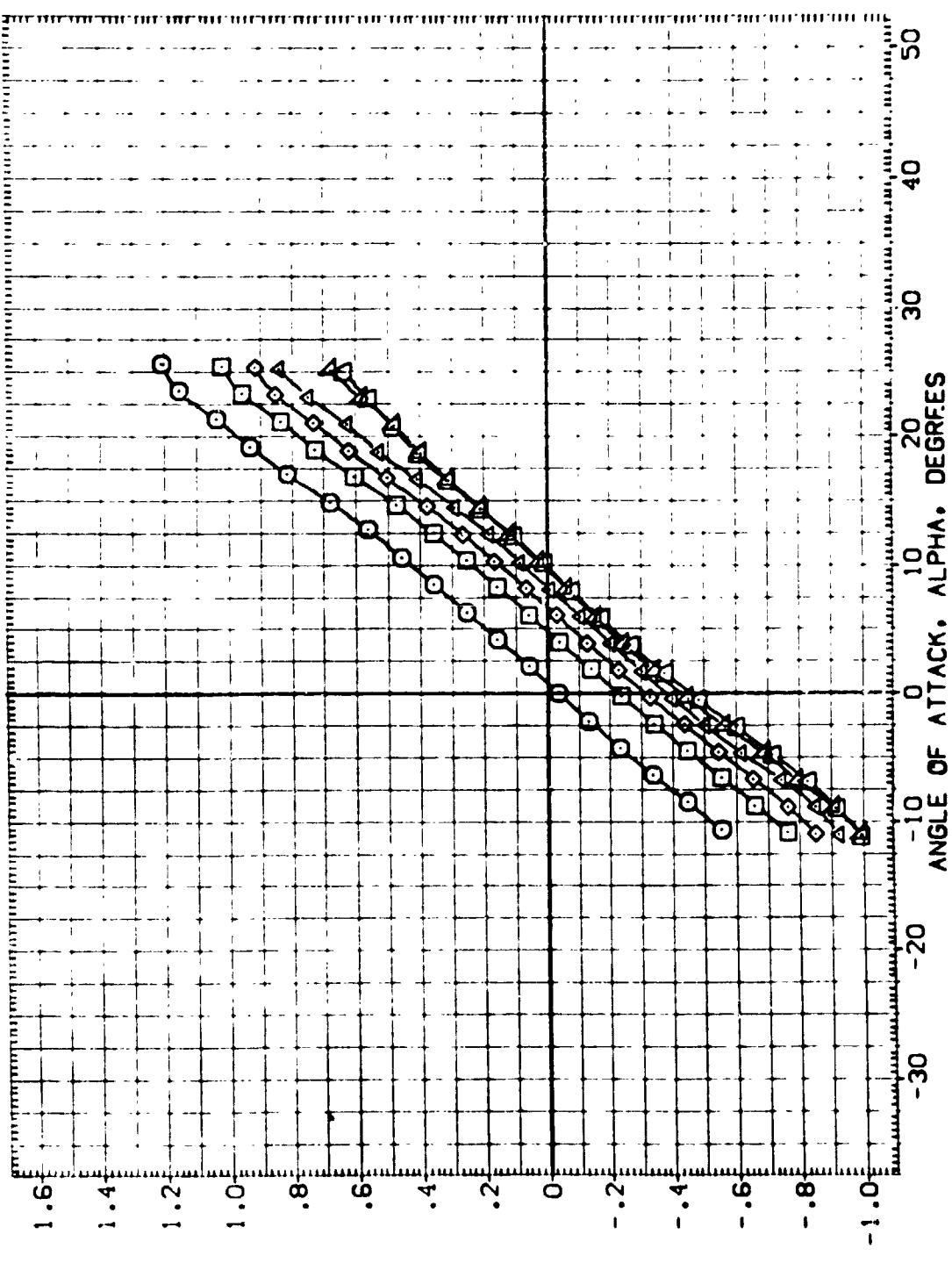


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPORBK	AIRLON	REFERENCE INFORMATION
{ AF0004 }	0A119A BS1C1F12P51V124E48V1SR15X29	.000	.000	25.000	.000	SRF 2690.0100 90.F.T.
{ AF0007 }	0A119A BS1C1F12P51V124E48V1SR15X29	-10.000	.000	25.000	.000	LRF 474.8100 INOES
{ AF0010 }	0A119A BS1C1F12P51V124E48V1SR15X29	-15.000	.000	25.000	.000	BRF 536.6800 INOES
{ AF0016 }	0A119A BS1C1F12P51V124E48V1SR15X29	-20.000	.000	25.000	.000	YRFP 1076.4800 INOES
{ AF0012 }	0A119A BS1C1F12P51V124E48V1SR15X29	-30.000	.000	25.000	.000	YRFP 375.0700 INOES
{ AF0006 }	0A119A BS1C1F12P51V124E48V1SR15X29	-40.000	.000	25.000	.000	SCALE .0405

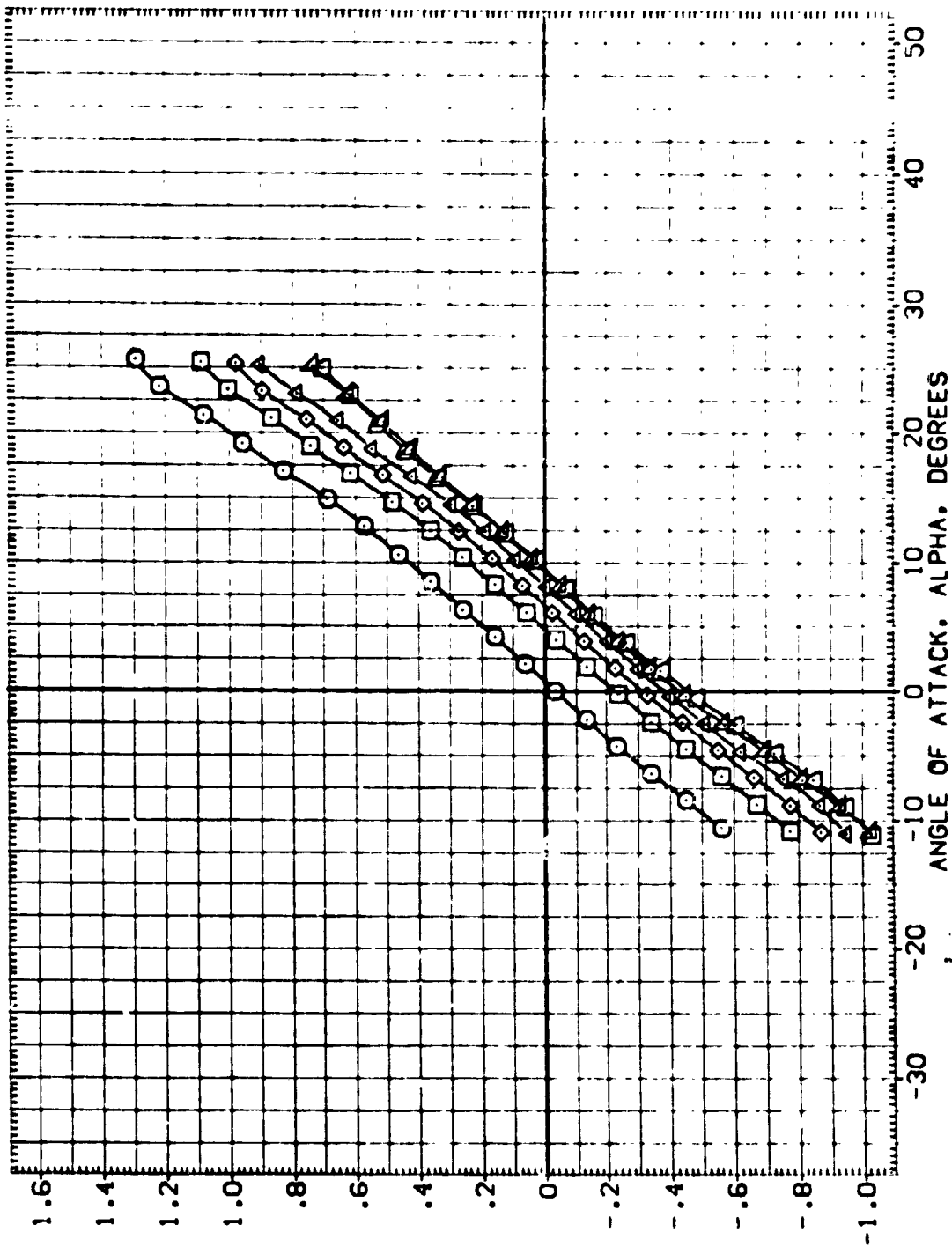


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	S-DOBRK	AIRLON	REFERENCE INFORMATION
(AF8004)	CA11SA B61C11F12V51V124E48V1SR1SA29	.000	.000	25.000	.000	SREF 2690.0130 SQ.FT.
(AF8077)	CA11SA B61C11F12V51V124E48V1SR1SA29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8019)	CA11SA B61C11F12V51V124E48V1SR1SA29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8016)	CA11SA B61C11F12V51V124E48V1SR1SA29	-20.000	.000	25.000	.000	XRRP 1076.4900 INCHES
(AF8012)	CA11SA B61C11F12V51V124E48V1SR1SA29	-30.000	.000	25.000	.000	YRRP 5.0000 INCHES
(AF8006)	CA11SA B61C11F12V51V124E48V1SR1SA29	-40.000	.000	25.000	.000	ZRRP .0405 SCALE

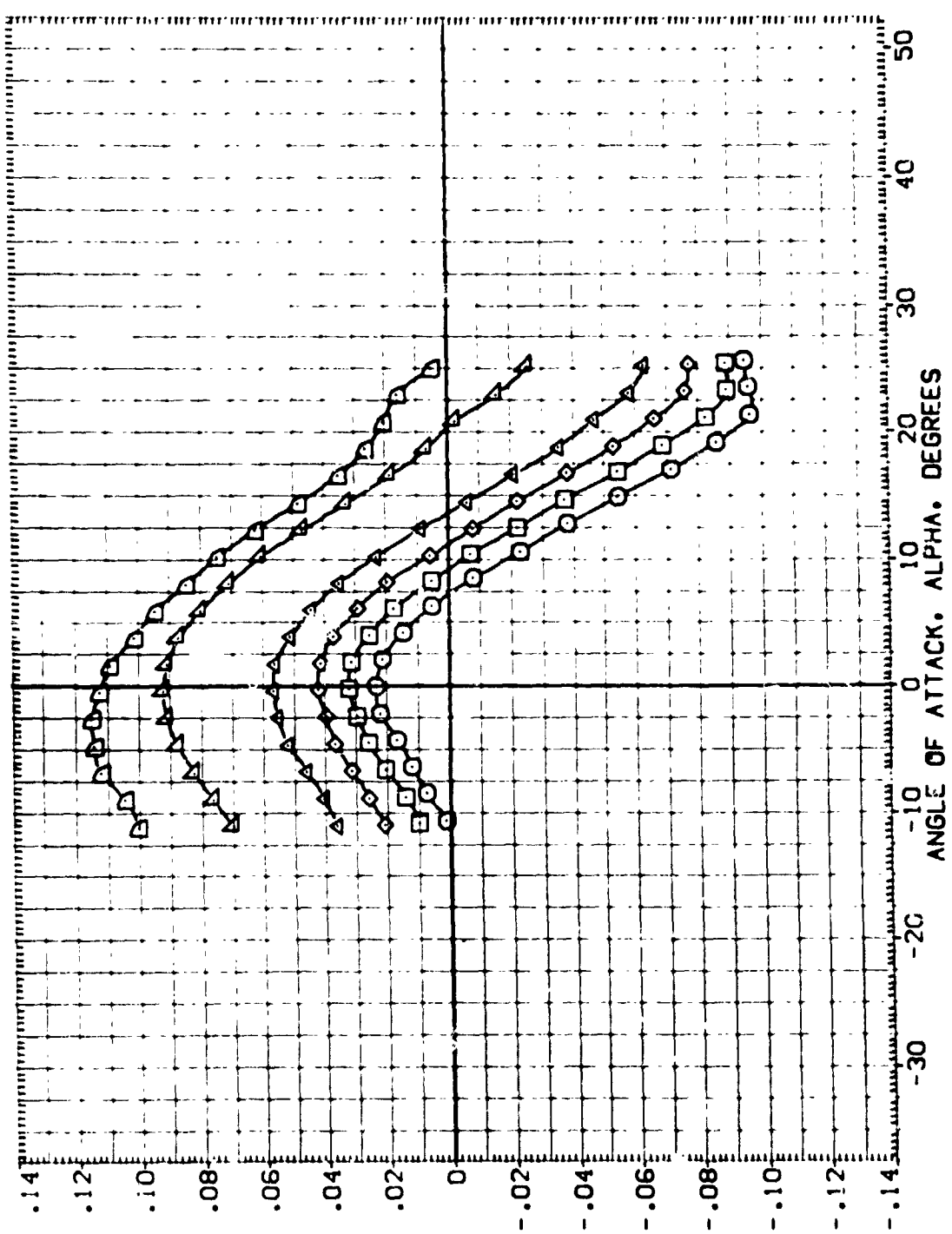


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION ELEVON BDF LAP SPOBRK AILRON REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDF LAP	SPOBRK	AILRON	REFERENCE INFORMATION
{AF8004}	DA119A B61C1F12451V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 50.FT.
{AF8027}	DA119A B61C1F12451V124E48V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF8019}	DA119A B61C1F12451V124E48V19R15X29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
{AF8016}	DA119A B61C1F12451V124E48V19R15X29	-20.000	.000	25.000	.000	YMRP 1076.4800 INCHES
{AF8012}	DA119A B61C1F12451V124E48V19R15X29	-30.000	.000	25.000	.000	ZMRP 375.0000 INCHES
{AF8006}	DA119A B61C1F12451V124E48V19R15X29	-40.000	.000	25.000	.000	SCALE .0405 SCALE

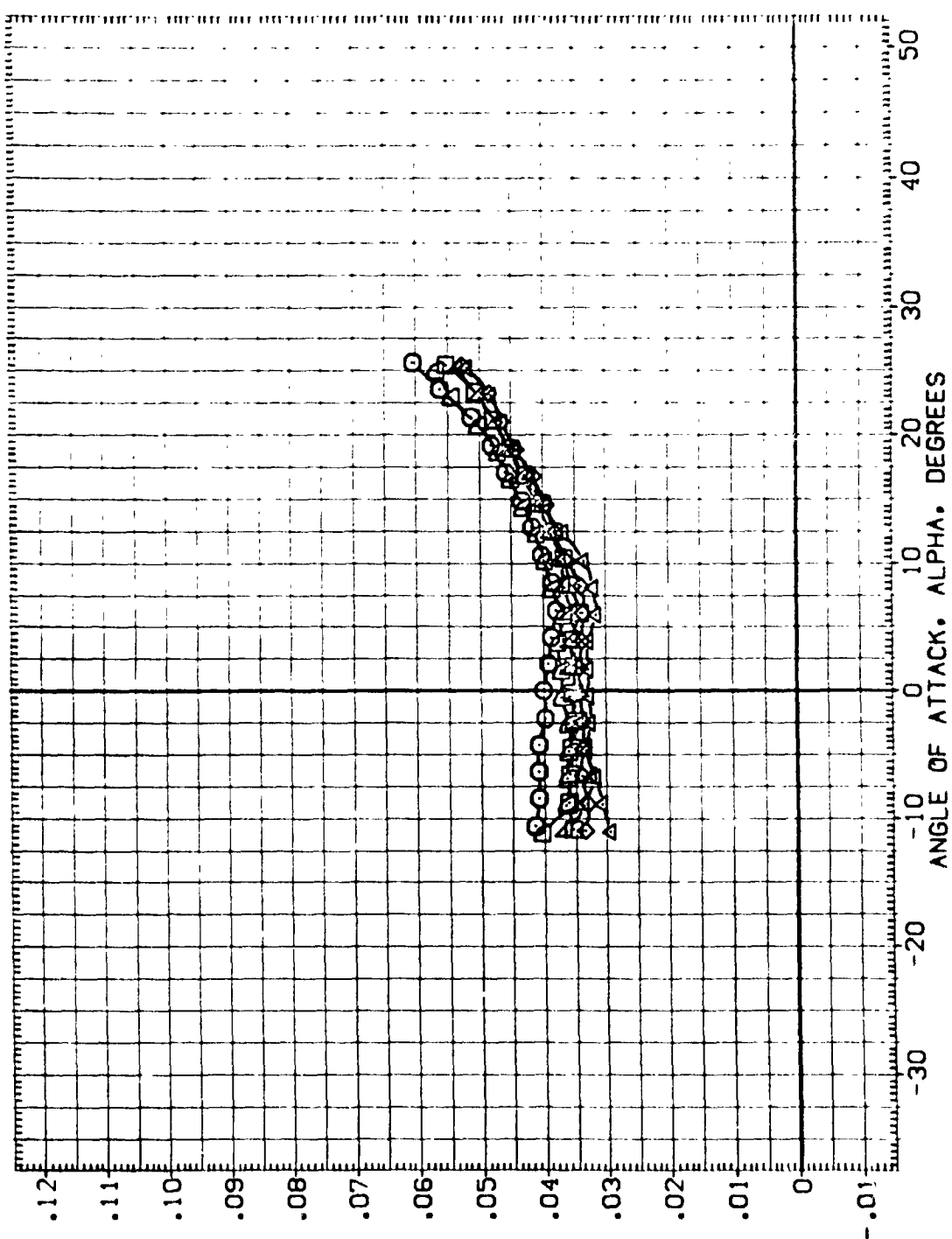


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BAFLAP	SPOILER	AILERON	REFERENCE INFORMATION
[AF8004]	0A119A B61C1F 215 V124E48V 9915X29	.000	.000	75.000	.000	SREF 2690.0100 SQ.FT.
[AF8027]	0A119A B61C1F 215 V124E48V 9915X29	.000	.000	75.000	.000	LREF 474.8100 INCHES
[AF8019]	0A119A B61C1F 215 V124E48V 9915X29	-10.000	.000	75.000	.000	BREF 936.6607 INCHES
[AF8016]	0A119A B61C1F 215 V124E48V 9915X29	-15.000	.000	75.000	.000	YMRP 1016.4800 INCHES
[AF8012]	0A119A B61C1F 215 V124E48V 9915X29	-20.000	.000	75.000	.000	ZMRP 375.0000 INCHES
[AF8006]	0A119A B61C1F 215 V124E48V 9915X29	-30.000	.000	75.000	.000	SCALE 10105
		-40.000	.000	75.000	.000	SCALE

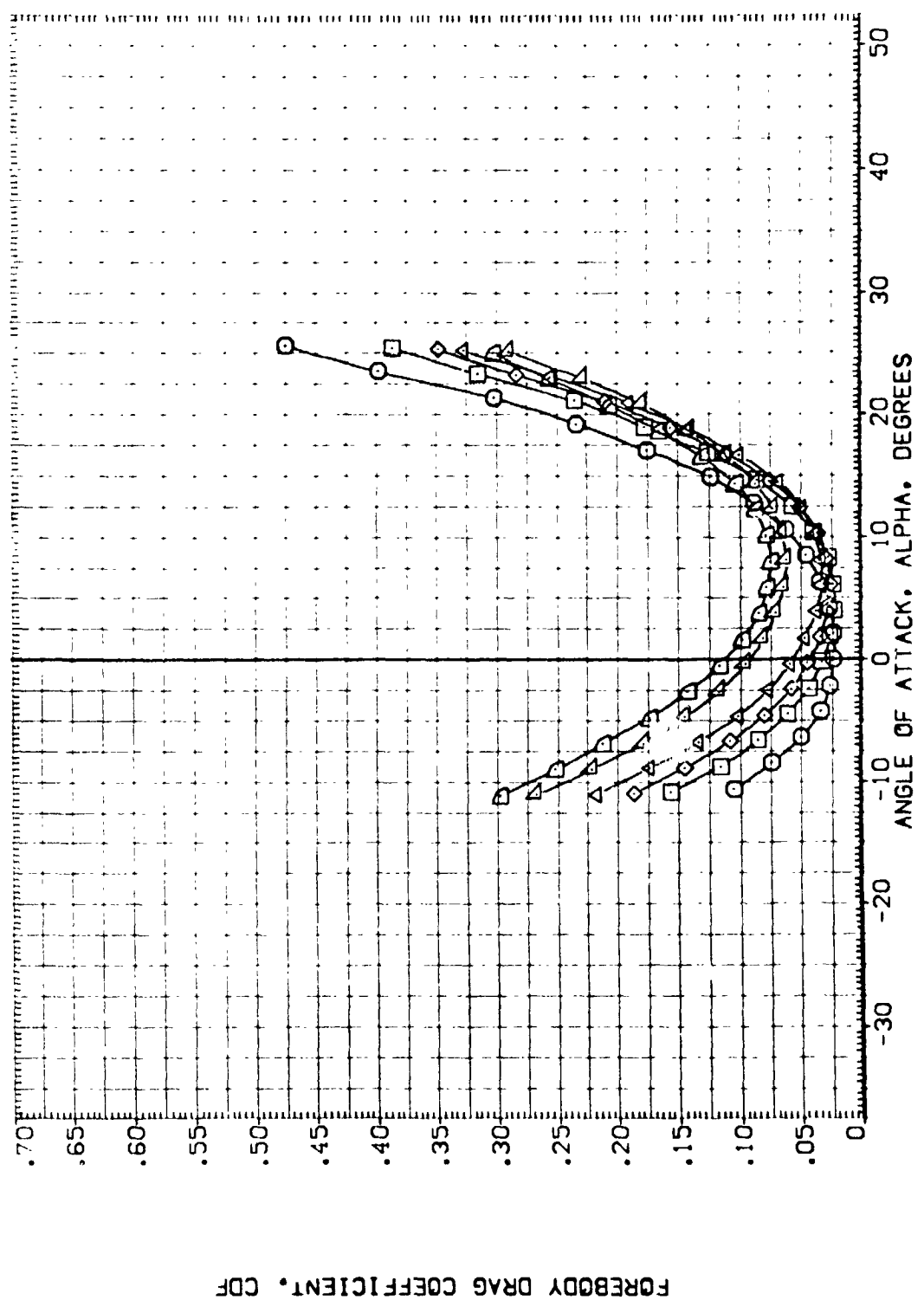


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

CAJ MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
{ AF8004 }	0A119A BS1C1F1251V124E48V19R15X29	.000	.000	23.000	.000	SREF 2690.0100 50.00
{ AF8007 }	0A119A BS1C1F1251V124E48V19R15X29	-10.000	.000	23.000	.000	LREF 474.8100 INCHES
{ AF8019 }	0A119A BS1C1F1251V124E48V19R15X29	-15.000	.000	23.000	.000	BREF 536.6900 INCHES
{ AF8016 }	0A119A BS1C1F1251V124E48V19R15X29	-20.000	.000	23.000	.000	XARP 1076.1900 INCHES
{ AF8012 }	0A119A BS1C1F1251V124E48V19R15X29	-30.000	.000	23.000	.000	YARP .0000 INCHES
{ AF8006 }	0A119A BS1C1F1251V124E48V19R15X29	-40.000	.000	23.000	.000	ZARP 375.0000 INCHES
						SCALE .0405

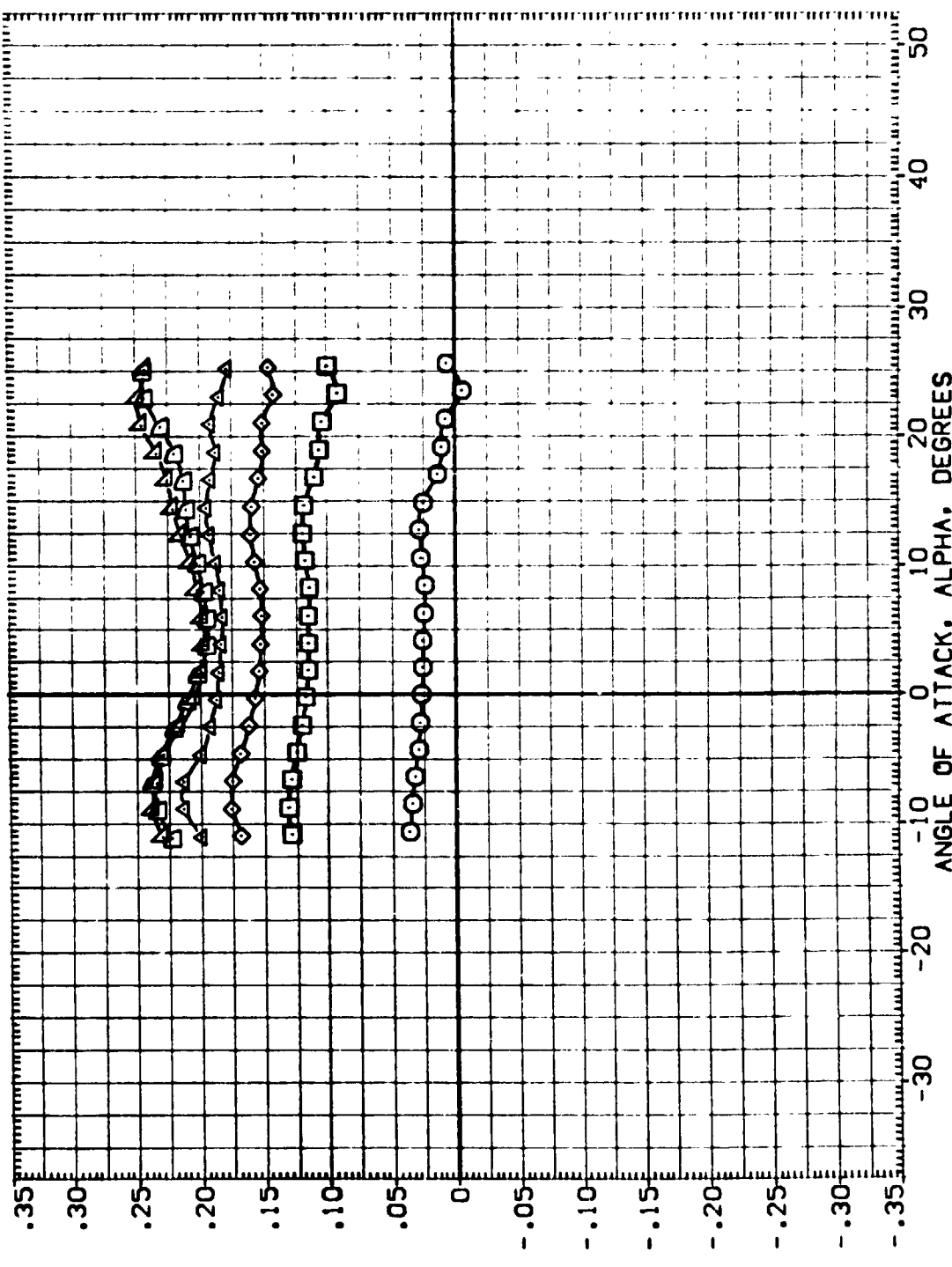


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8004)	0A119A B61C11F 2W51V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690 0100 SQ.FT
(AF8027)	0A119A B61C11F 2W51V124E48V19R15X29	-10.000	.000	25.000	.000	LREF 477A 8100 INCHES
(AF8019)	0A119A B61C11F 2W51V124E48V19R15X29	-15.000	.000	25.000	.000	DRLE 936.5800 INCHES
(AF8016)	0A119A B61C11F 2W51V124E48V19R15X29	-20.000	.000	25.000	.000	AMRP 1076.4800 INCHES
(AF8012)	0A119A B61C11F 2W51V124E48V19R15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8006)	0A119A B61C11F 2W51V124E48V19R15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

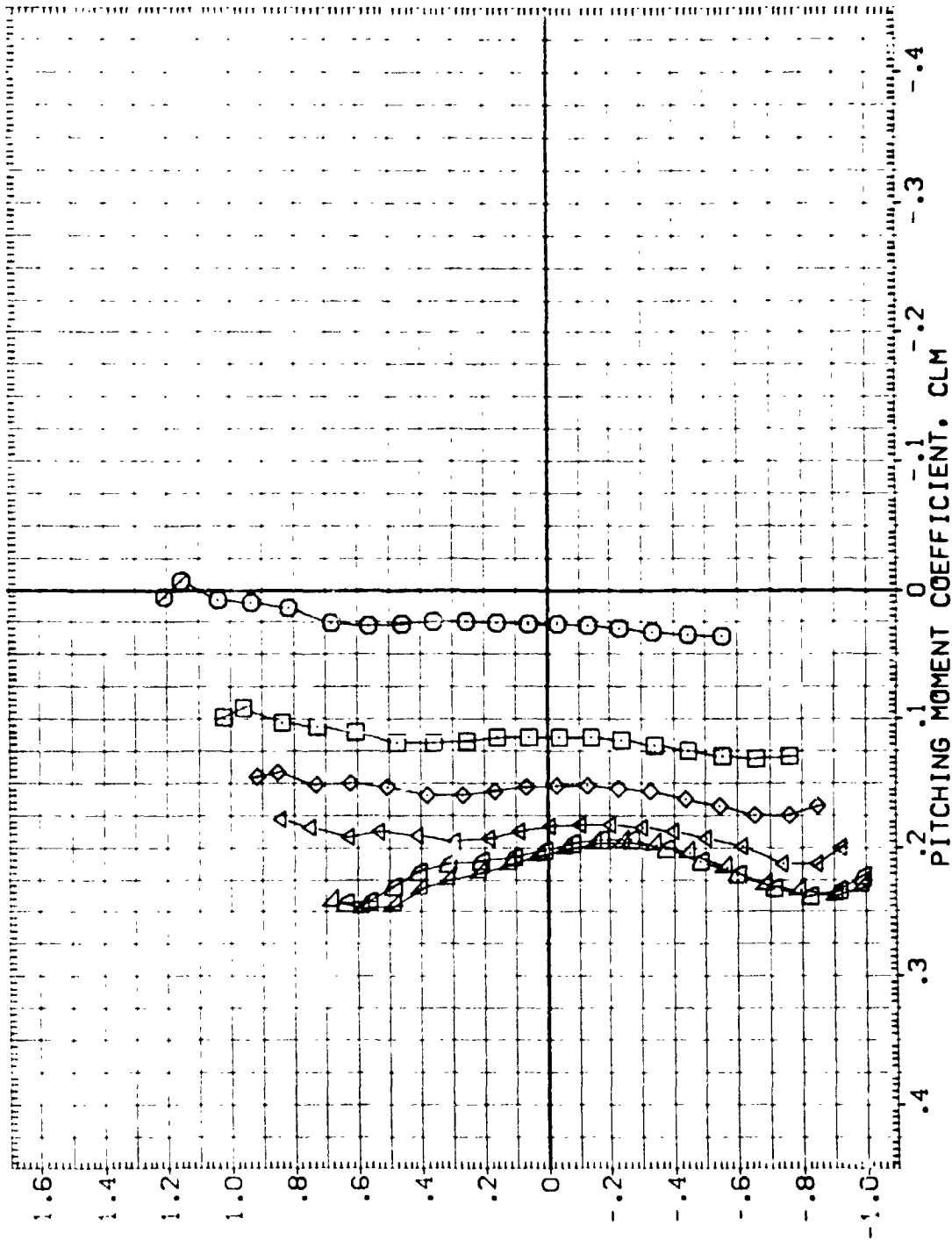


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AIRBN	REFERENCE INFORMATION
(AF8004)	0A119A B61C1F12P5V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690 0100 SQ.FT.
(AF8007)	0A119A B61C1F12P5V124E48V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8019)	0A119A B61C1F12P5V124E48V19R15X29	-15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8016)	0A119A B61C1F12P5V124E48V19R15X29	-20.000	.000	25.000	.000	XREF 1076.4800 INCHES
(AF8012)	0A119A B61C1F12P5V124E48V19R15X29	-30.000	.000	25.000	.000	YREF 375.0000 INCHES
(AF8006)	0A119A B61C1F12P5V124E48V19R15X29	-40.000	.000	25.000	.000	ZREF 0405 SCALE

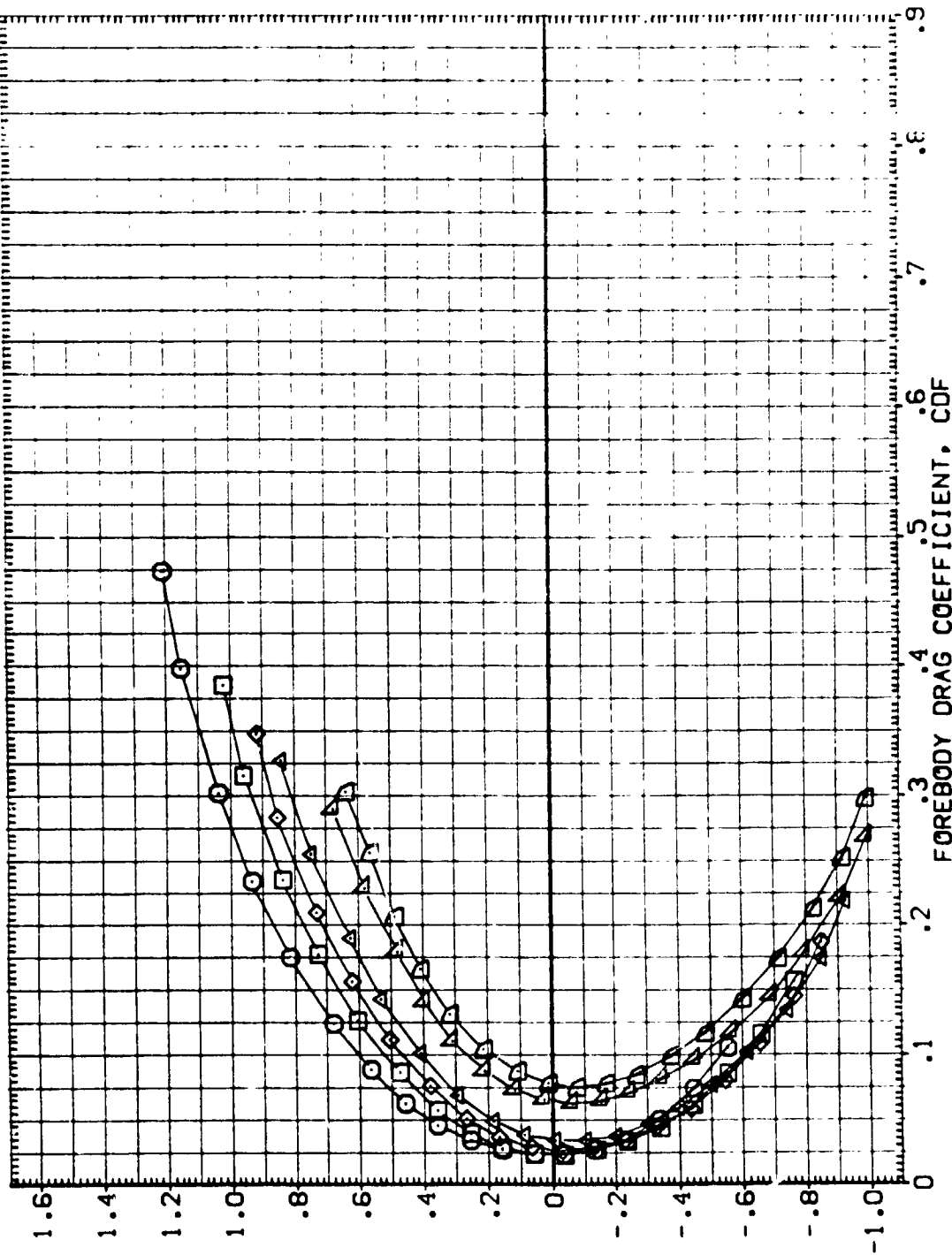


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTION)

(A)MACH = .26

SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	30° LAP	SPDPRK	ALLRON	REFERENCE	FORMATION
010004	0A119A B610 15125 15125 15125 15125	.000	.000	25.000	.000	SREF 285.0100	50.17 INCHES
010007	0A119A B610 15125 15125 15125 15125	-10.000	.000	25.000	.000	REF 474.8100	INC 25
010018	0A119A B610 15125 15125 15125 15125	-15.000	.000	25.000	.000	REF 306.6300	INC 25
010019	0A119A B610 15125 15125 15125 15125	-20.000	.000	25.000	.000	XMRP 1071.1400	INC 25
010012	0A119A B610 15125 15125 15125 15125	-30.000	.000	25.000	.000	YMRP .0000	INCHES
010006	0A119A B610 15125 15125 15125 15125	-40.000	.000	25.000	.000	ZMRP 375.0000	INCHES
						SCALE	SCALE

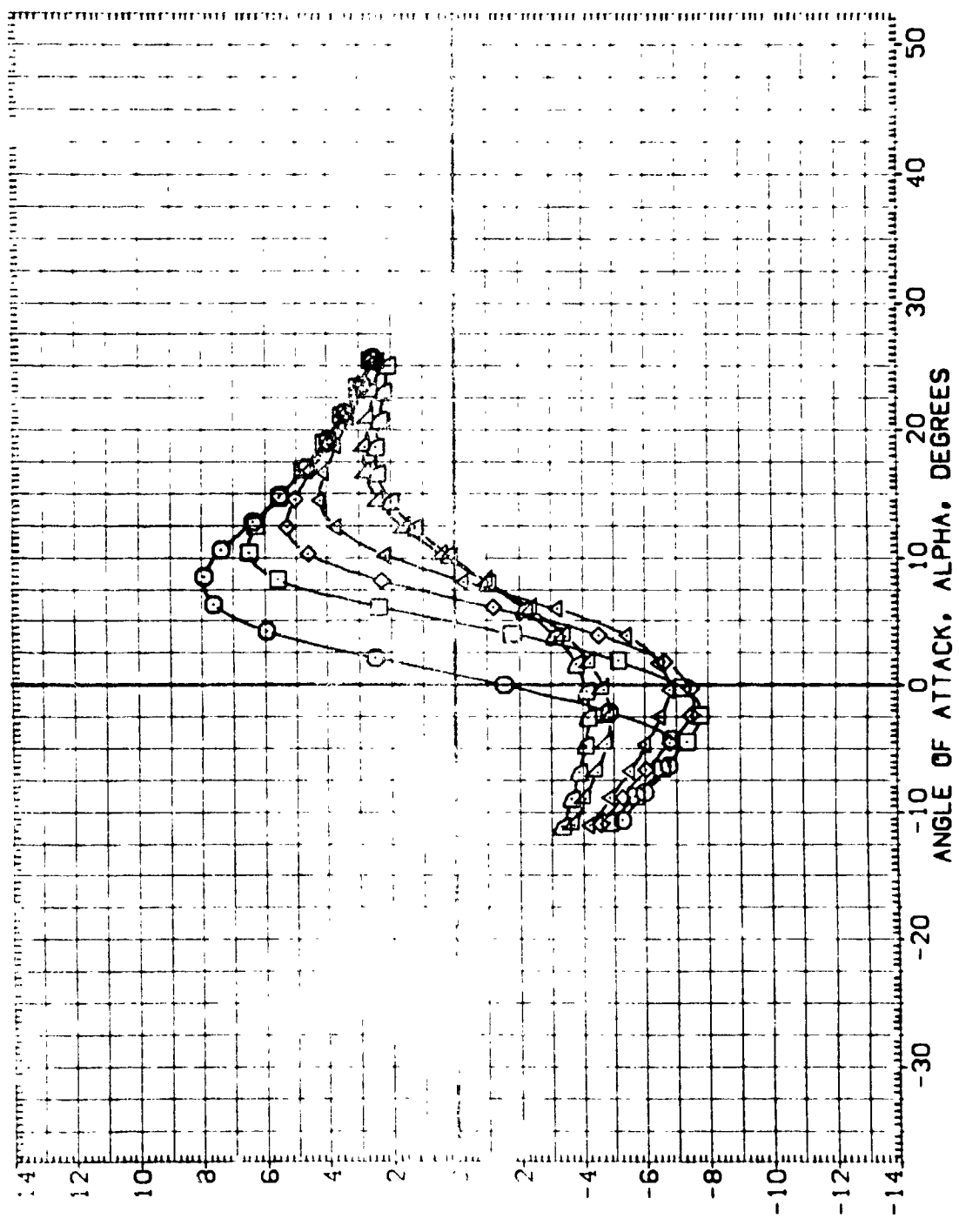
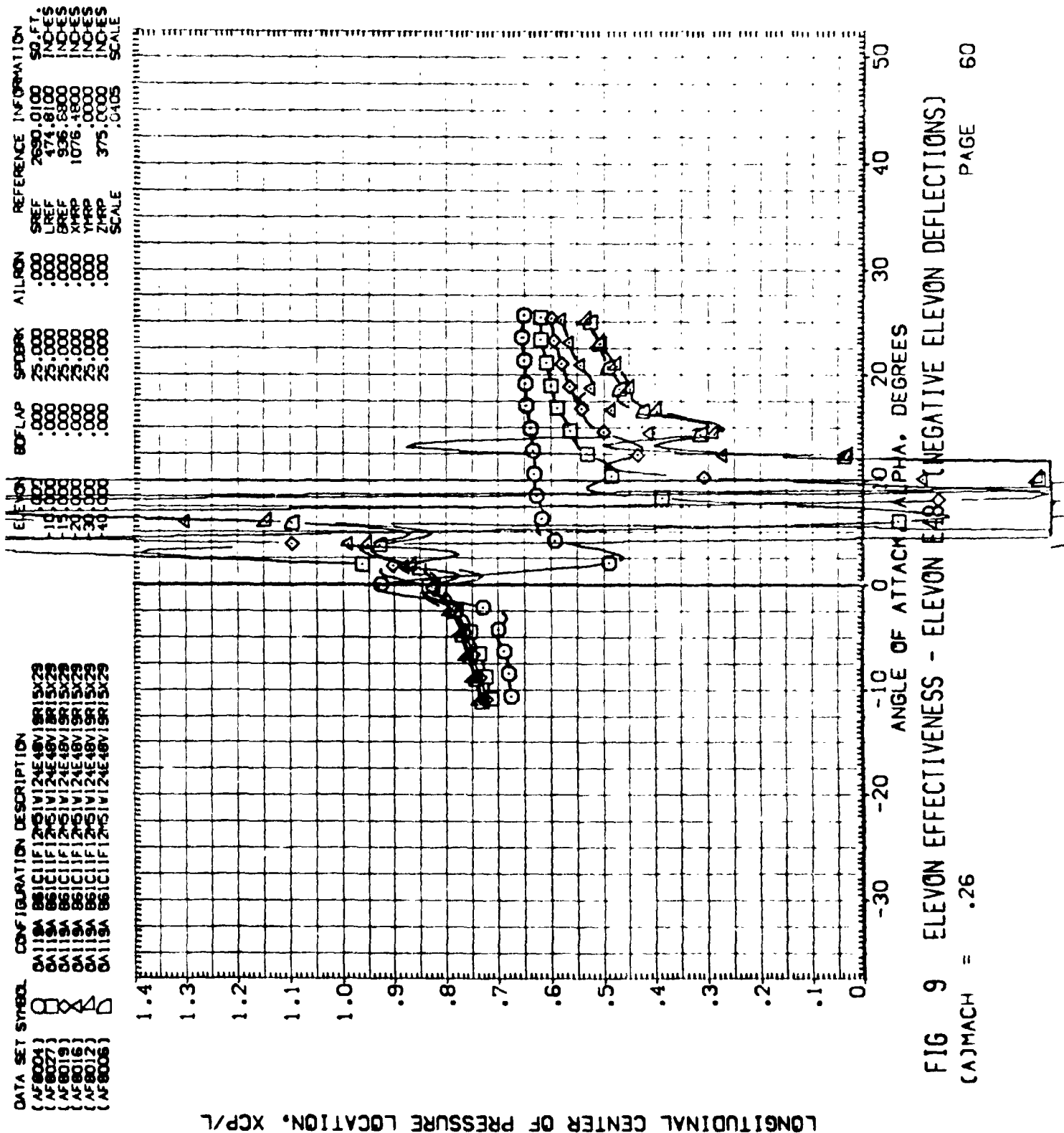


FIG 9 ELEVON EFFECTIVENESS - ELEVON E48 (NEGATIVE ELEVON DEFLECTIONS)

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
(AF8054)	0A119A 861C11F 2VS1V 24E51V SR15X29	20.000	.000	25.000	.000	SRREF 7690.0100 SQ.FT
(AF8048)	0A119A 861C11F 2VS1V 24E51V SR15X29	15.000	.000	25.000	.000	LRREF 474.8100 ACES
(AF8037)	0A119A 861C11F 2VS1V 24E49V SR15X29	10.000	.000	25.000	.000	BRREF 936.6600 ACES
(AF8042)	0A119A 861C11F 2VS1V 24E49V SR15X29	.000	.000	25.000	.000	XREF 1076.4800 ACES
						WREF 375.0000 ACES
						ZREF 375.0000 ACES
						SCALE .0100 SCALE

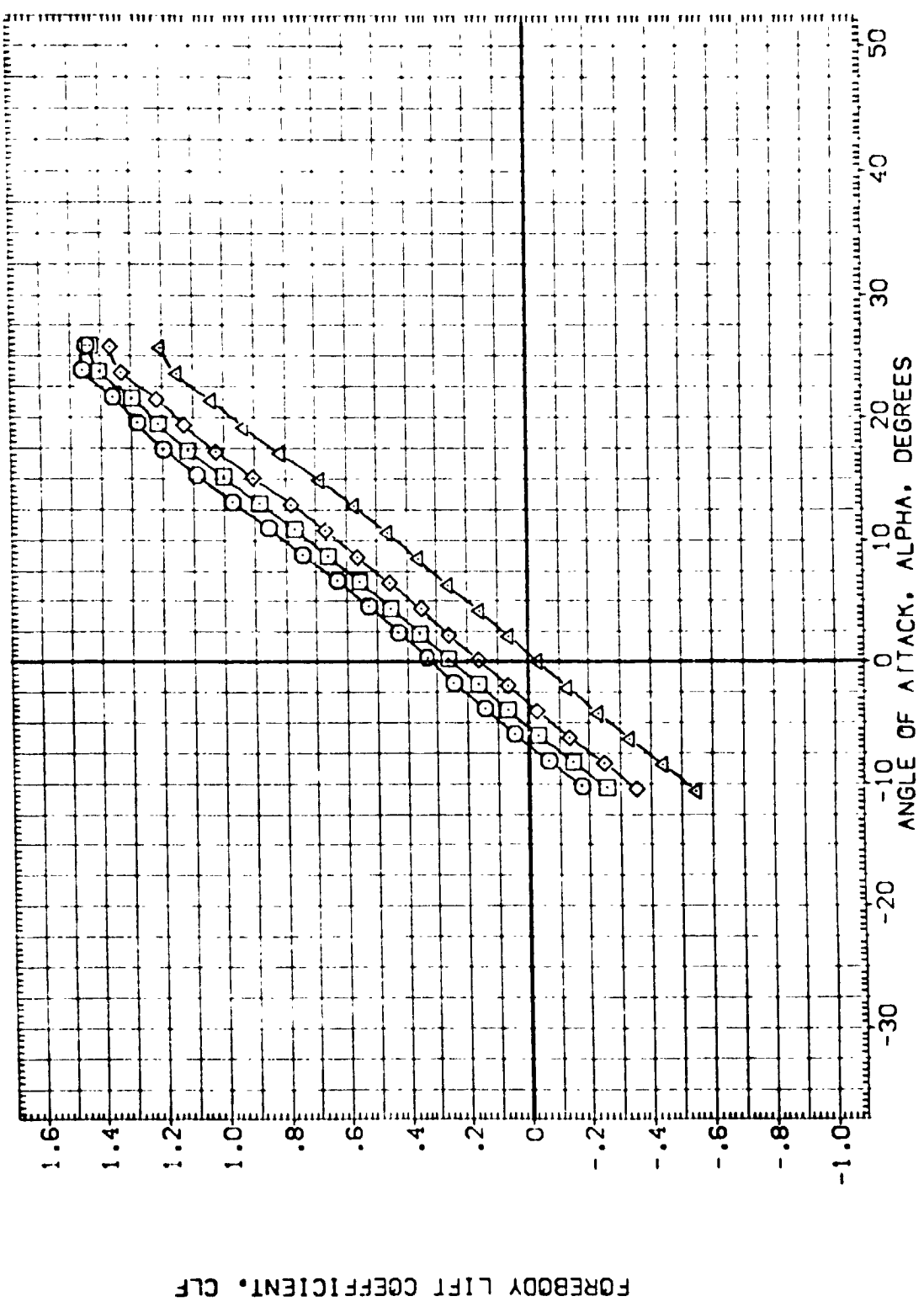


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
[AF8054]	GA119A B61C11F12V51V124E51V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8018]	GA119A B61C11F12V51V124E51V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8037]	GA119A B61C11F12V51V124E49V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8042]	GA119A B61C11F12V51V124E49V19R15X29	.000	.000	25.000	.000	XMRP 1076.4800 INCHES
						YMRP 375.0000 INCHES
						SCALE .0405

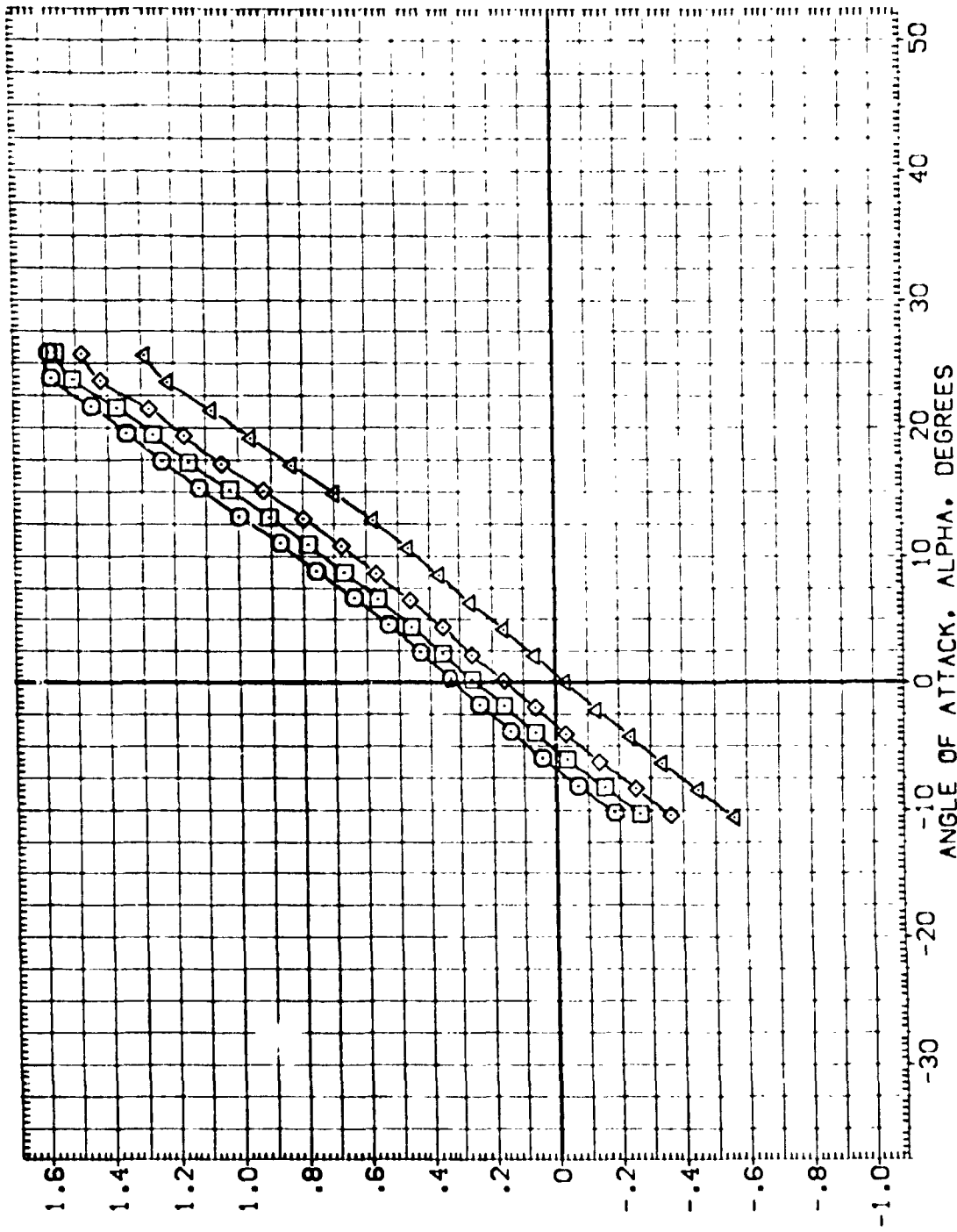


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONF	QUANTIFICATION DESCRIPTION	ELEVON	BOFLAP	SPORRK	AIRLON	REFERENCE INFORMATION
[AF8054]	0A119A	86[C]F 2-5 V124E51V19R15X29	20.000	.000	25.000	.000	SREF 390.0100 SQ.FT.
[AF8048]	0A119A	86[C]F 2-5 V124E51V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8037]	0A119A	86[C]F 2-5 V124E49V19R15X29	10.000	.000	25.000	.000	9REF 936.6800 INCHES
[AF8042]	0A119A	86[C]F 2-5 V124E49V19R15X29	.000	.000	25.000	.000	XREF 1076.4800 INCHES
							YREF .0000 INCHES
							ZREF 375.0000 INCHES
							SCALE .0105

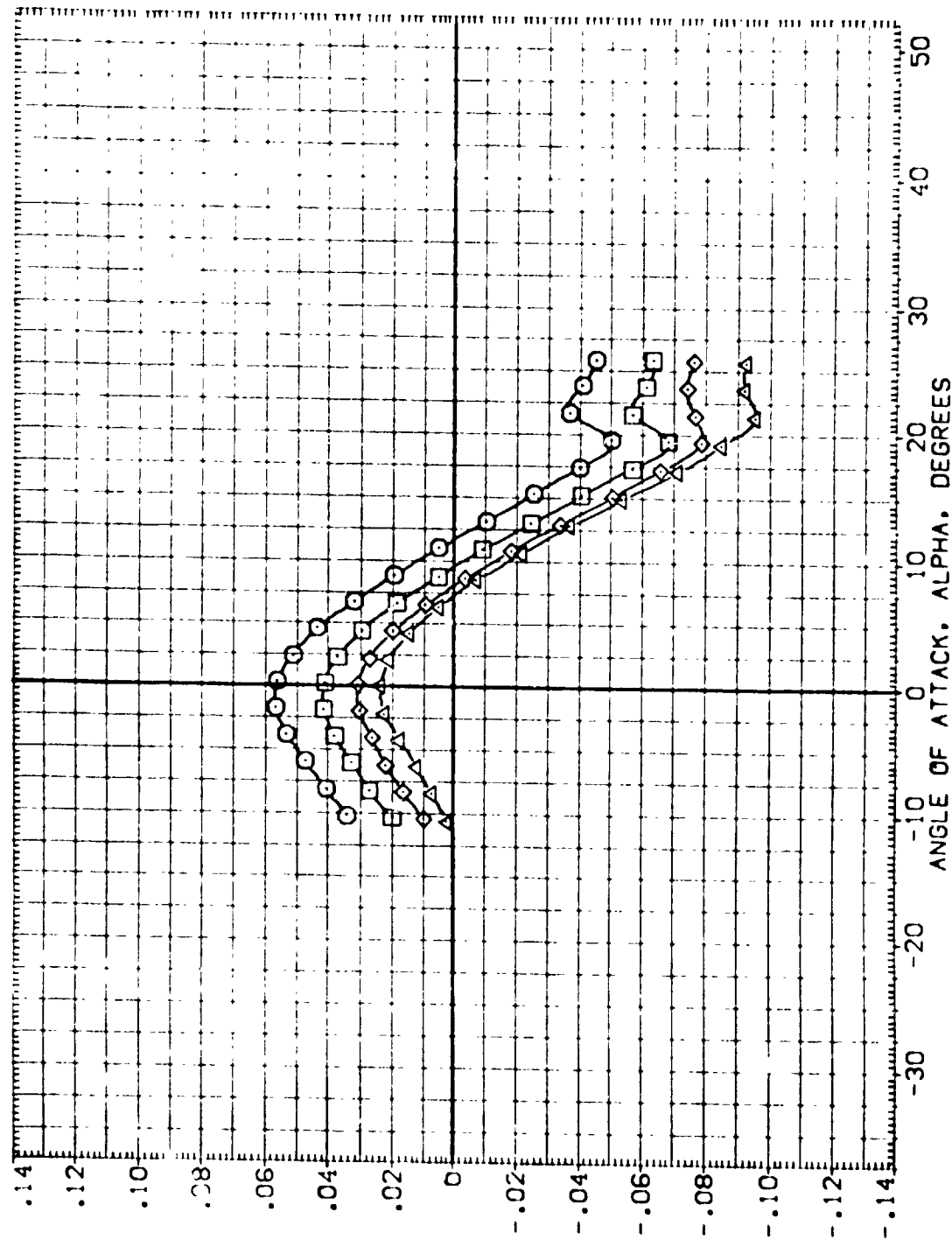


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPORRK	AILRON	REFERENCE INFORMATION
[AF8054]	0A119A B61C11F1251V124E51V1SR15X29	20.000	.000	25.000	.000	SREF 2690.0100 SO.FT.
[AF8048]	0A119A B61C11F1251V124E51V1SR15X29	15.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8037]	0A119A B61C11F1251V124E49V1SR15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8042]	0A119A B61C11F1251V124E49V1SR15X29	.000	.000	25.000	.000	XMRP 1076.4800 INCHES
						YMRP 375.0000 INCHES
						ZMRP .0405 SCALE

BASE AXIAL FORCE COEFFICIENT, CAB

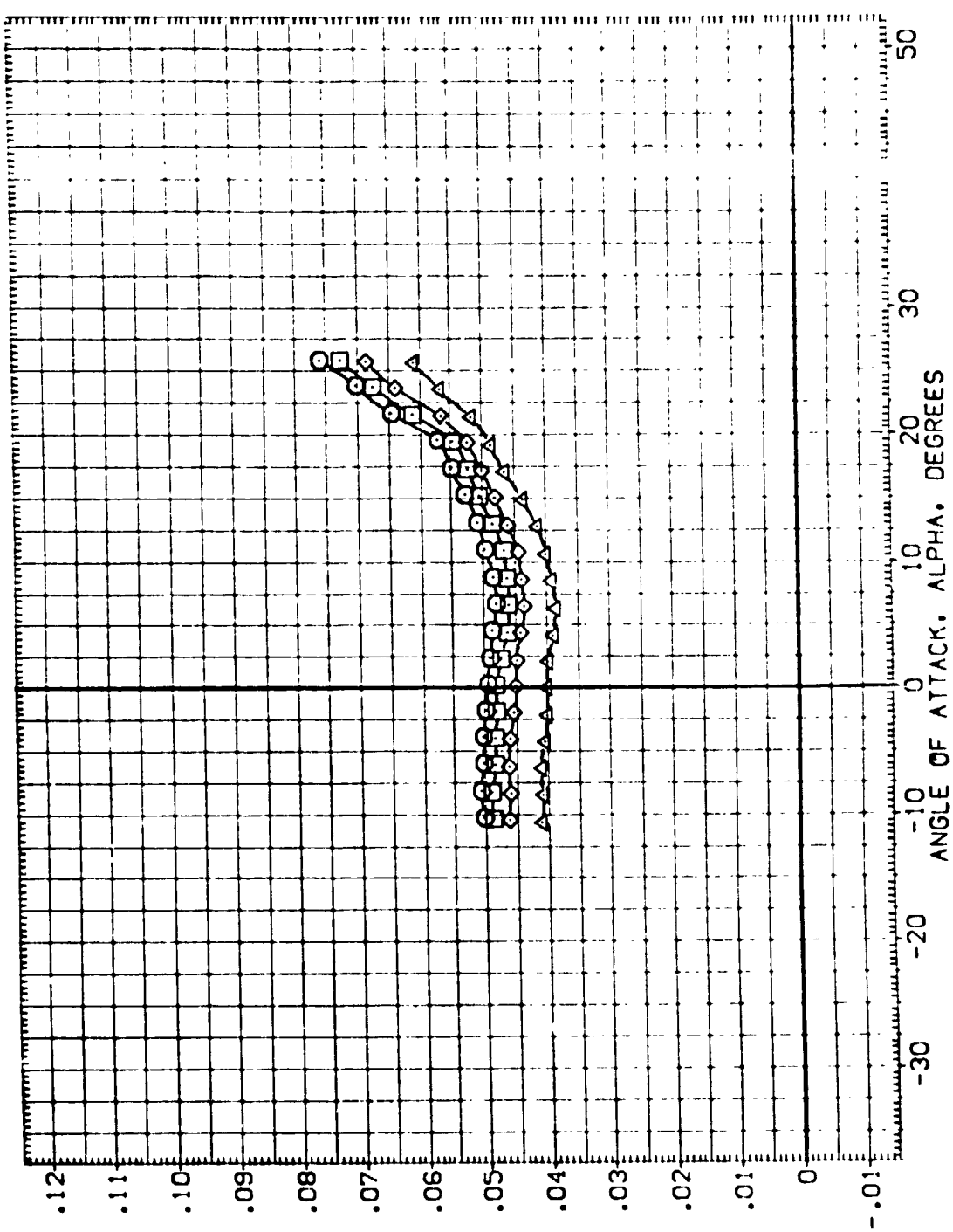


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOROK	AIRLON	REFERENCE INFORMATION	SO.FT.
(AF8054)	0A119A B6 C1 F1 2 S V 24 E S V 1 9 R 1 5 X 2 9	20.000	.000	25.000	.000	SREF 2590.0100	INCHES
(AF8048)	0A119A B6 C1 F1 2 S V 24 E S V 1 9 R 1 5 X 2 9	15.000	.000	25.000	.000	LREF 474.8100	INCHES
(AF8037)	0A119A B6 C1 F1 2 S V 24 E 49 V 1 9 R 1 5 X 2 9	10.000	.000	25.000	.000	BREF 936.6800	INCHES
(AF8042)	0A119A B6 C1 F1 2 S V 24 E 49 V 1 9 R 1 5 X 2 9	5.000	.000	25.000	.000	XREF 106.4800	INCHES
						YREF .0000	INCHES
						ZREF 379.0000	INCHES
						SCALE .0409	SCALE

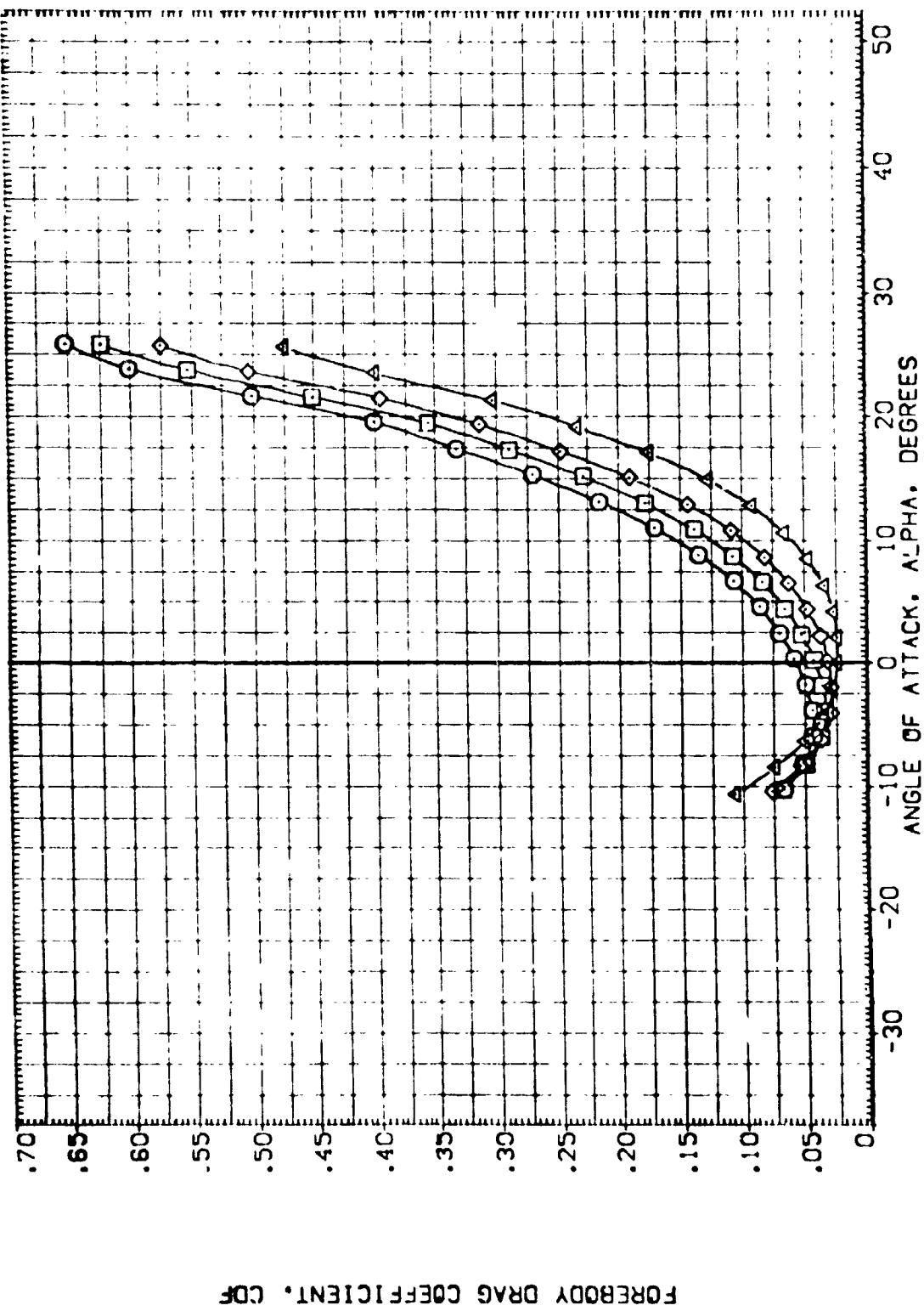


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILROB	REFERENCE INFORMATION
(AF8054)	CA119A B61C11F125:V124E51V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100
(AF8048)	CA119A B61C11F125:V124E51V19R15X29	15.000	.000	25.000	.000	LREF 474.8100
(AF8037)	CA119A B61C11F125:V124E49V19R15X29	10.000	.000	25.000	.000	BREF 936.6800
(AF8042)	CA119A B61C11F125:V124E49V19R15X29	5.000	.000	25.000	.000	XREF 1076.4800
						ZREF .0000
						SCALE 375.0000
						SCALE .0405

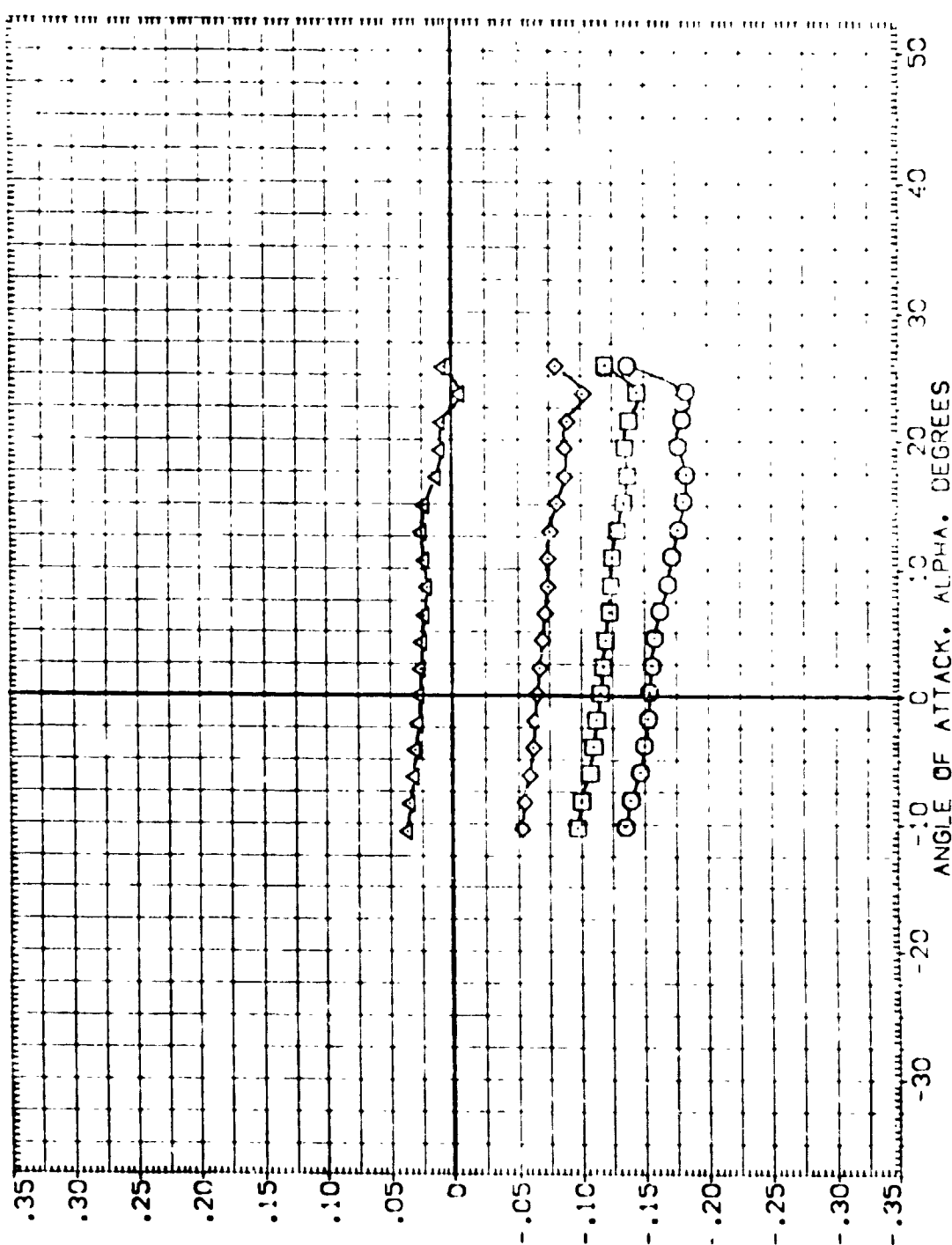


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

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PITCHING MOMENT COEFFICIENT, CLM

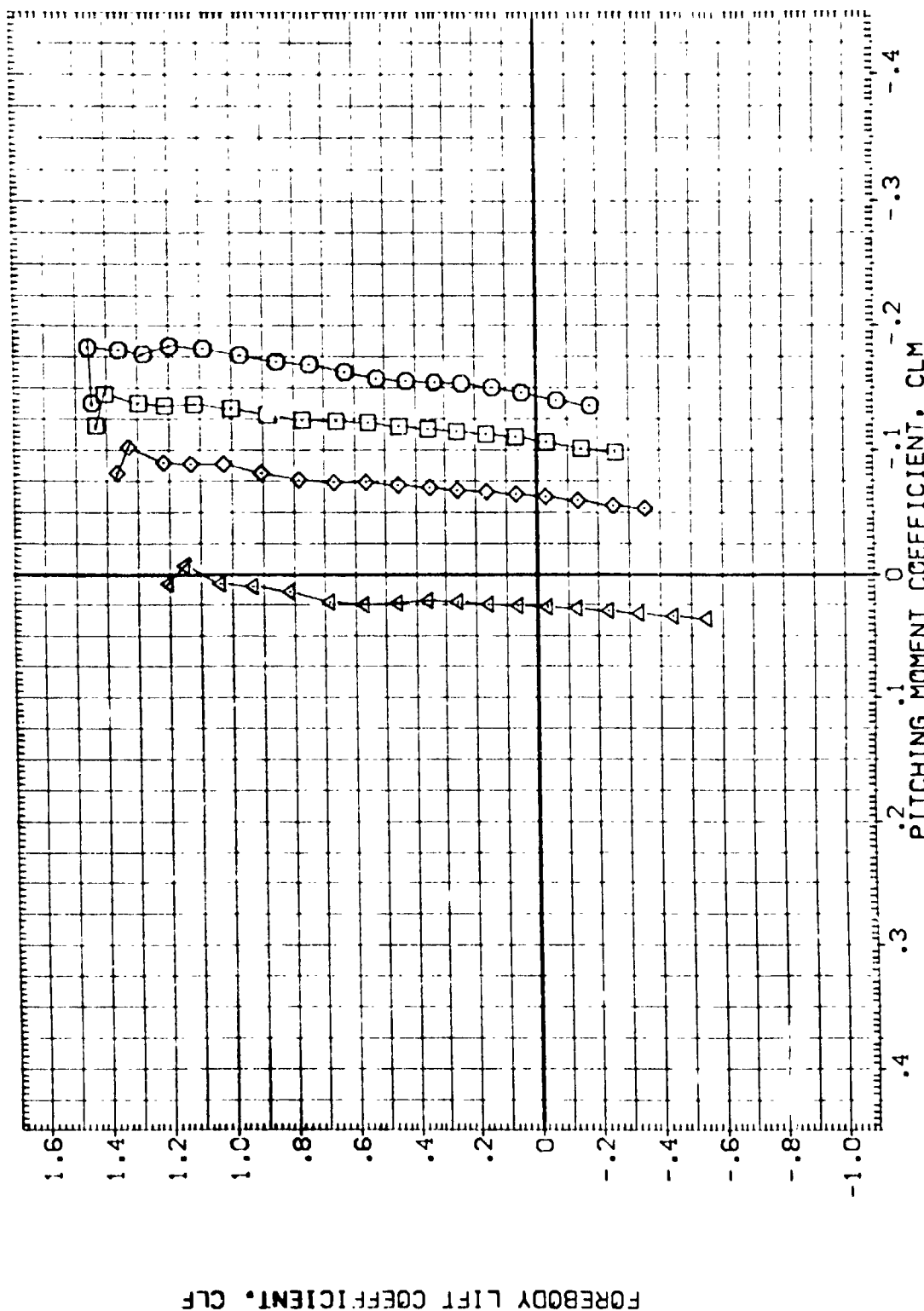
[illegible]

FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

$$[A]_{\text{MACH}} = .26$$

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
(AF8054)	DA119A B61C1F12MS1V124E51V19R15X29	20.000	.000	25.000	.000	SREF 250.0100 50.00
(AF8048)	DA119A B61C1F12MS1V124E51V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 10.00
(AF8037)	DA119A B61C1F12MS1V124E49V19R15X29	10.000	.000	25.000	.000	BREF 936.8800 10.00
(AF8042)	DA119A B61C1F12MS1V124E49V19R15X29	.000	.000	25.000	.000	XREF 176.4800 10.00
						YREF 375.0000 10.00
						ZREF 375.0000 10.00
						SCALE .0100 INCHES

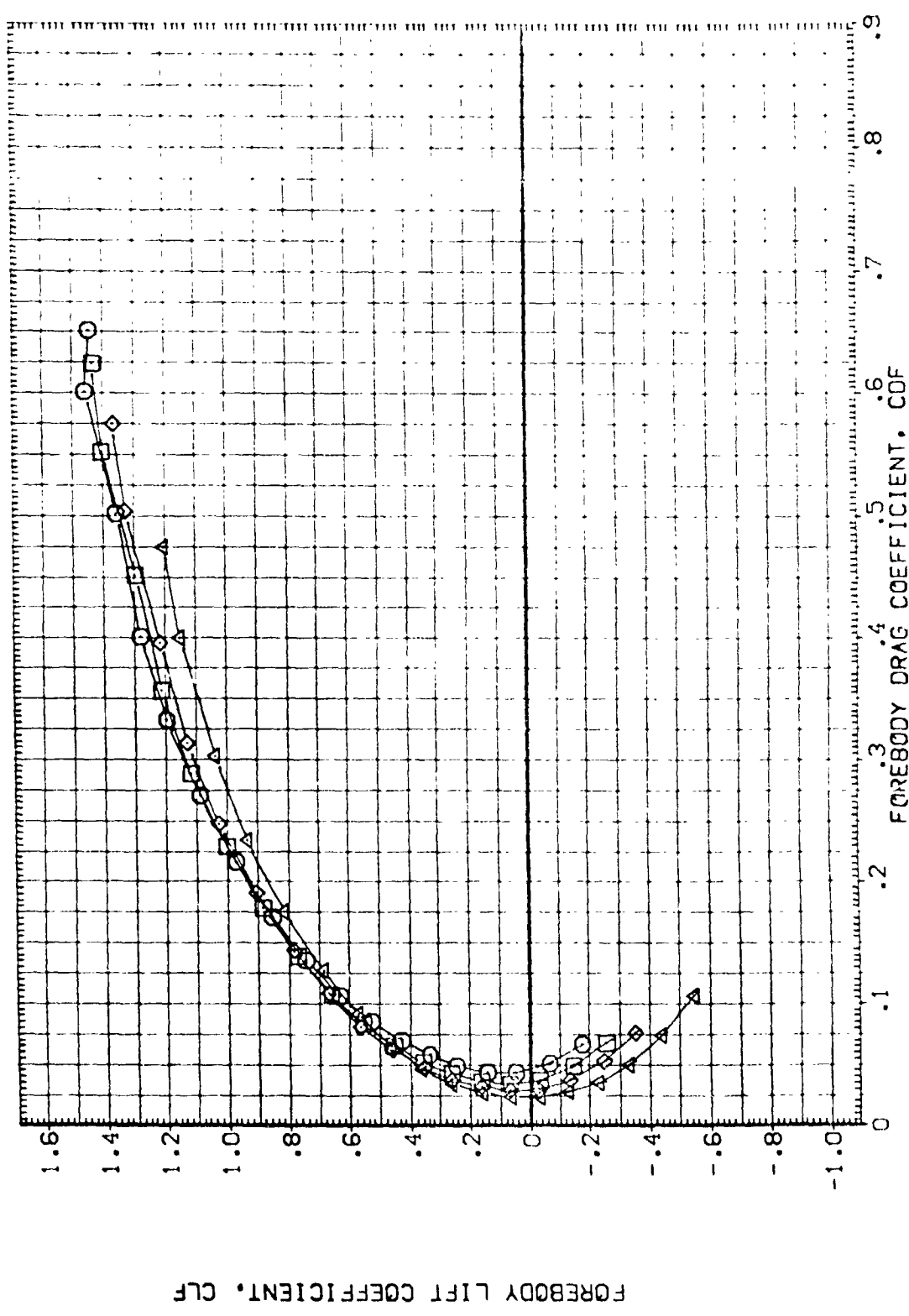


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON REFLECTIONS)

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8054)	GA119A B61C1F12V51V124E51V19R15X29	20.000	.000	25.000	.000	SREF 3690.0100 50.000
(AF8048)	GA119A B61C1F12V51V124E51V19R15X29	15.000	.000	25.000	.000	LREF 474.8100 1.000
(AF8037)	GA119A B61C1F12V51V124E51V19R15X29	10.000	.000	25.000	.000	BREF 536.8800 1.000
(AF8042)	GA119A B61C1F12V51V124E51V19R15X29	.000	.000	25.000	.000	XREF 1076.4800 1.000
						YREF 375.0000 1.000
						ZREF 375.0000 1.000
						SCALE .0405

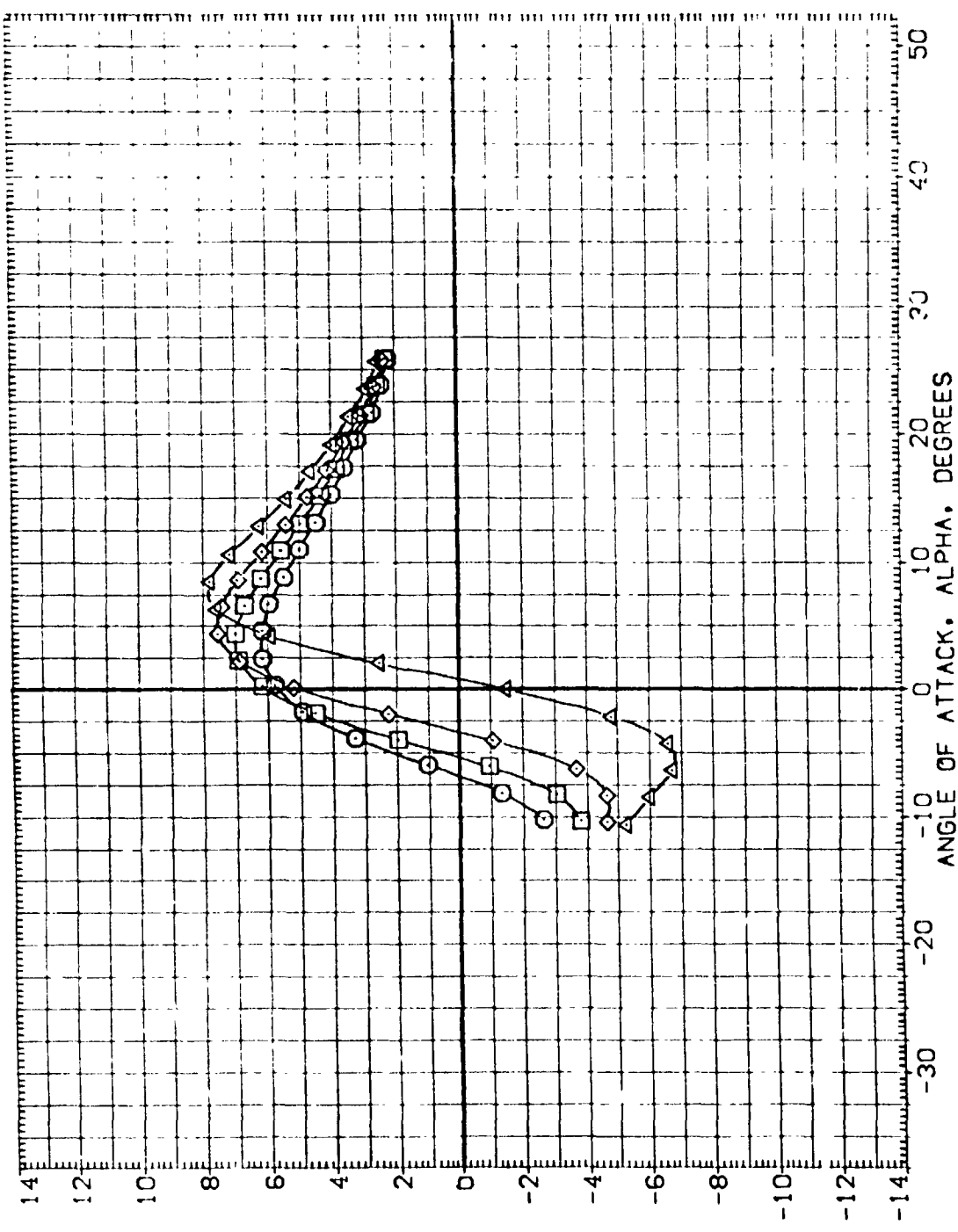


FIG 10 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AF8054)	Q1119A	B61C1	F12V5	V124E5	V19915X29
(AF8048)	Q1119A	B61C1	F12V5	V124E5	V19915X29
(AF8037)	Q1119A	B61C1	F12V5	V124E5	V19915X29
(AF8042)	Q1119A	B61C1	F12V5	V124E5	V19915X29

REFERENCE INFORMATION

SREF	2690.0100	SO, FT.
LREF	474.8100	NCES
BREF	936.6800	NCES
XMRP	1076.4800	NCES
YMRP	375.0000	NCES
ZMRP	375.0000	NCES
SCALE	.0405	SCALE

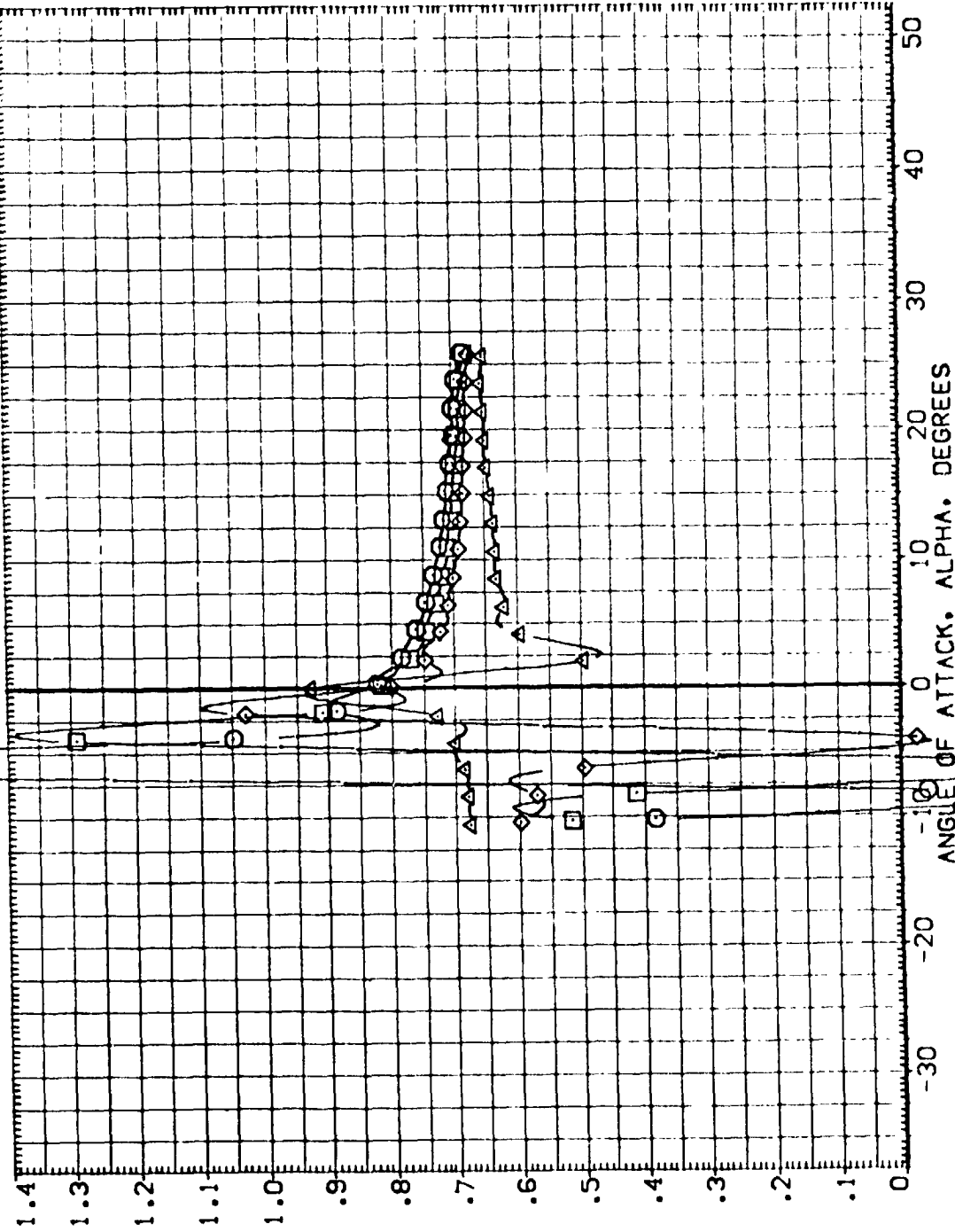


FIG 10 ELEVON EFFECTIVENESS + ELEVONS E49 AND E51 (POSITIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8042)	0A119A 361C11F12451V124E49V19R15X23	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8043)	0A119A 861C11F12451V124E49V19R15X23	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8047)	0A119A 861C11F12451V124E51V19R15X23	-20.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8046)	0A119A 861C11F12451V124E51V19R15X23	-30.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8045)	0A119A 861C11F12451V124E51V19R15X23	-40.000	.000	25.000	.000	YMRP 375.0000 INCHES
						SCALE .0405

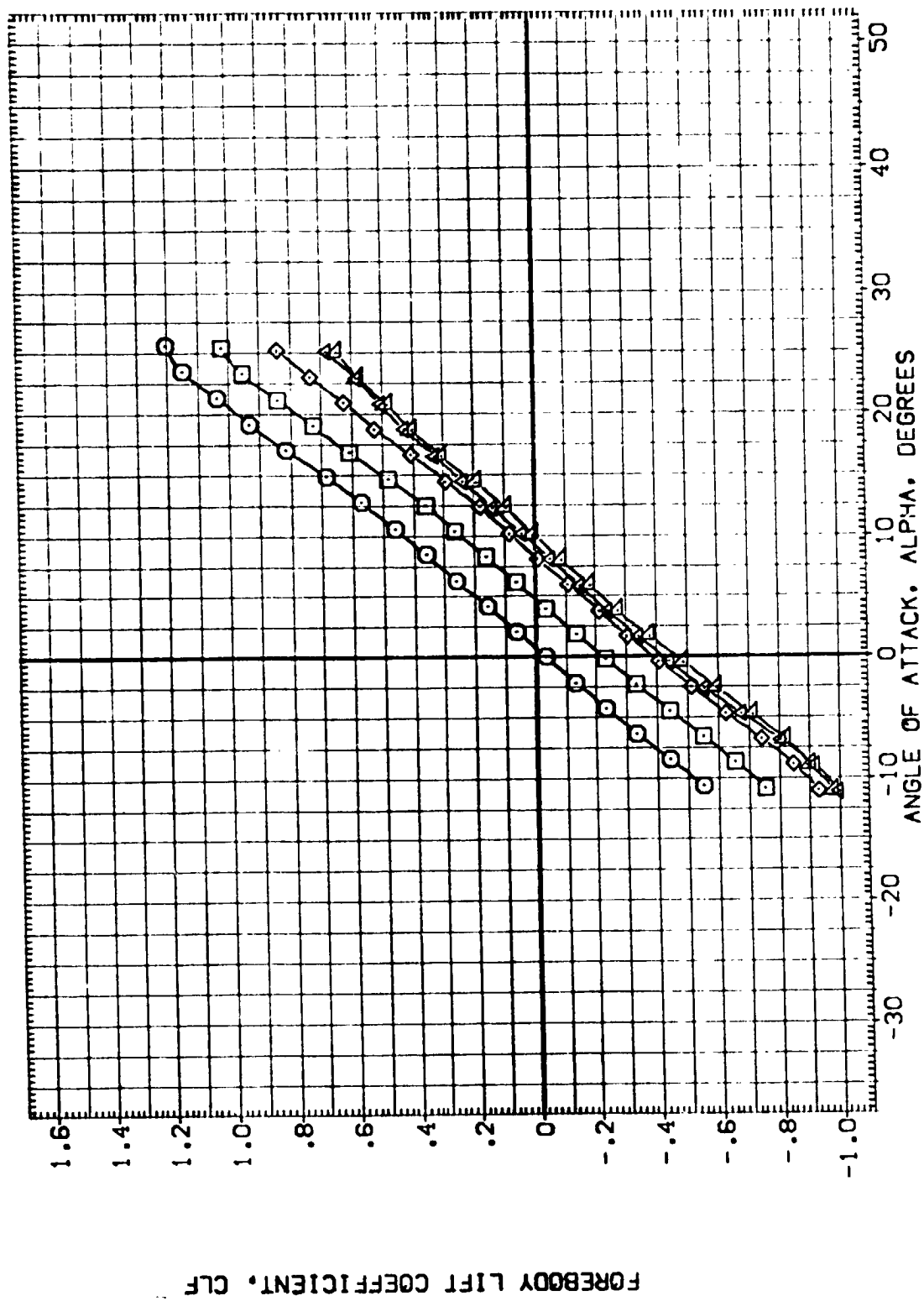


FIG 11 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDF LAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8042)	DA119A 861C11F127S1V124E49V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 50.FT
(AF8043)	DA119A 861C11F127S1V124E49V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8047)	DA119A 861C11F127S1V124E51V19R15X29	-20.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8046)	DA119A 861C11F127S1V124E51V19R15X29	-30.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8045)	DA119A 861C11F127S1V124E51V19R15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

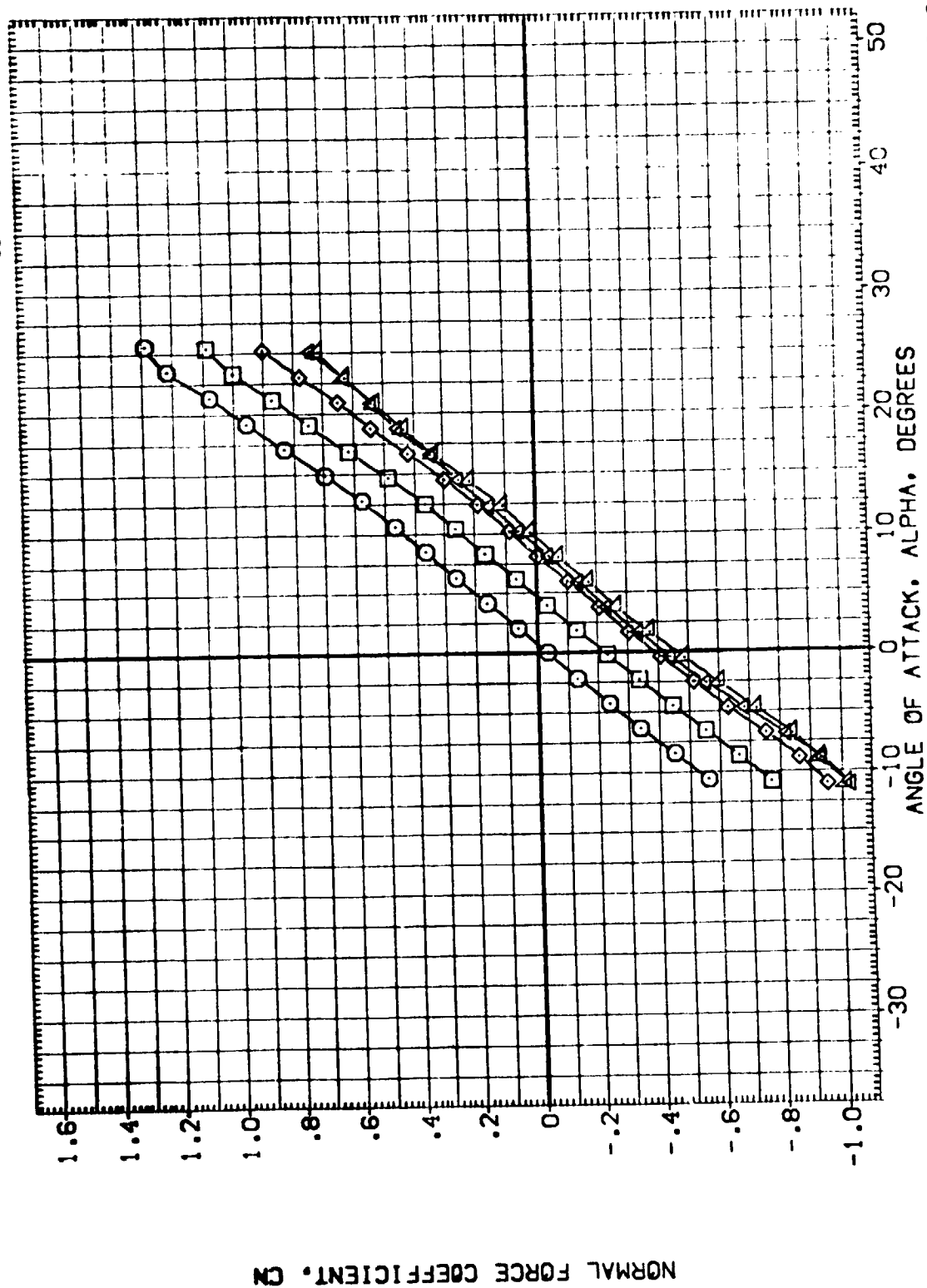


FIG 11 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8042)	GA119A B61C11F12MS1V124E49V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8043)	GA119A B61C11F12MS1V124E49V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8047)	GA119A B61C11F12MS1V124E51V19R15X29	-20.000	.000	23.000	.000	BREF 936.6800 INCHES
(AF8046)	GA119A B61C11F12MS1V124E51V19R15X29	-30.000	.000	25.000	.000	YMRP 1076.4800 INCHES
(AF8045)	GA119A B61C11F12MS1V124E51V19R15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

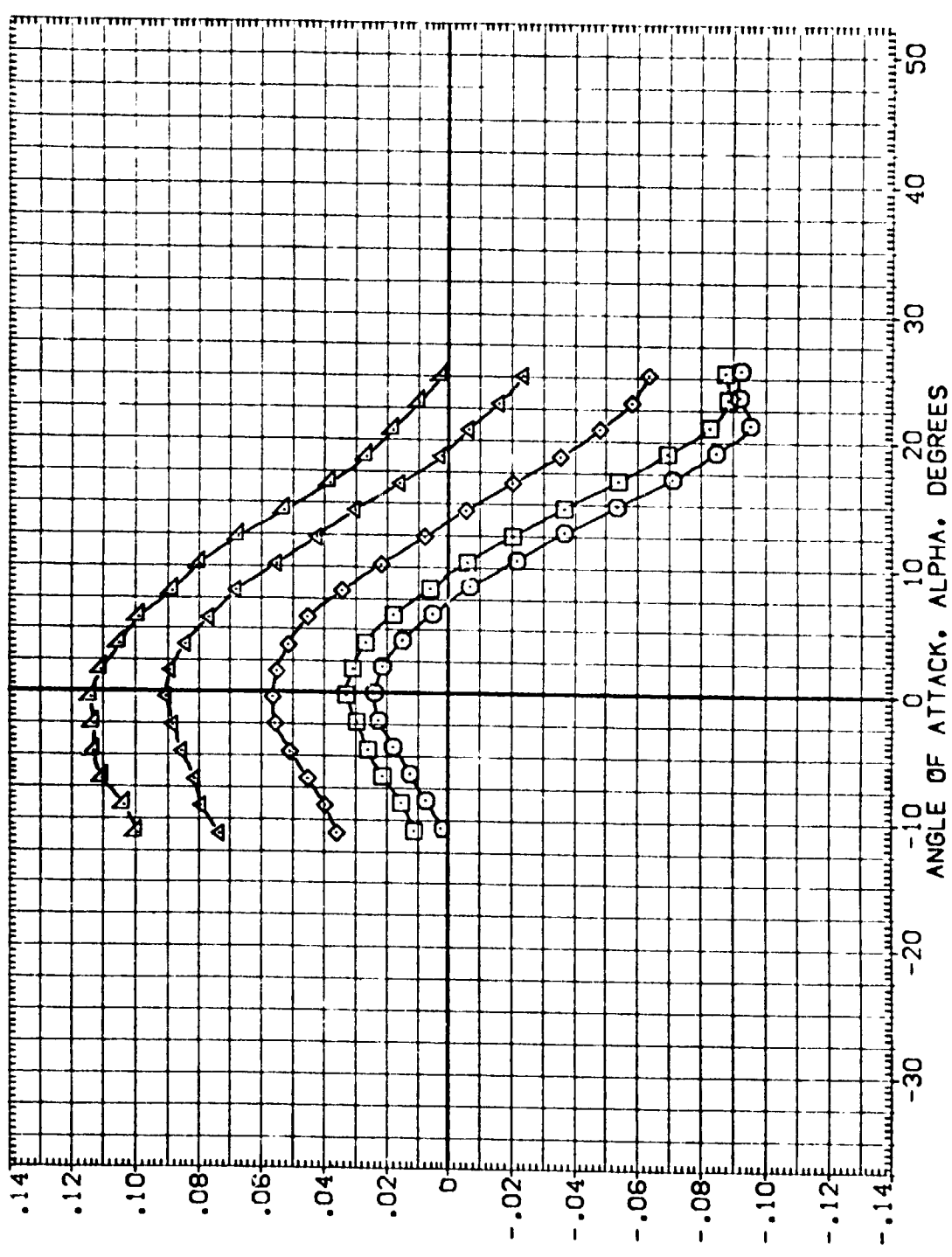


FIG 11 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET NAME	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
(AF8042)	GA119A BSIC11F12V51V124E49V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT
(AF8043)	GA119A BSIC11F12V51V124E49V1SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8044)	GA119A BSIC11F12V51V124E49V1SR15X29	-20.000	.000	25.000	.000	BREF 536.8600 INCHES
(AF8045)	GA119A BSIC11F12V51V124E49V1SR15X29	-30.000	.000	25.000	.000	XREF 1076.4800 INCHES
		-40.000	.000	25.000	.000	YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0405

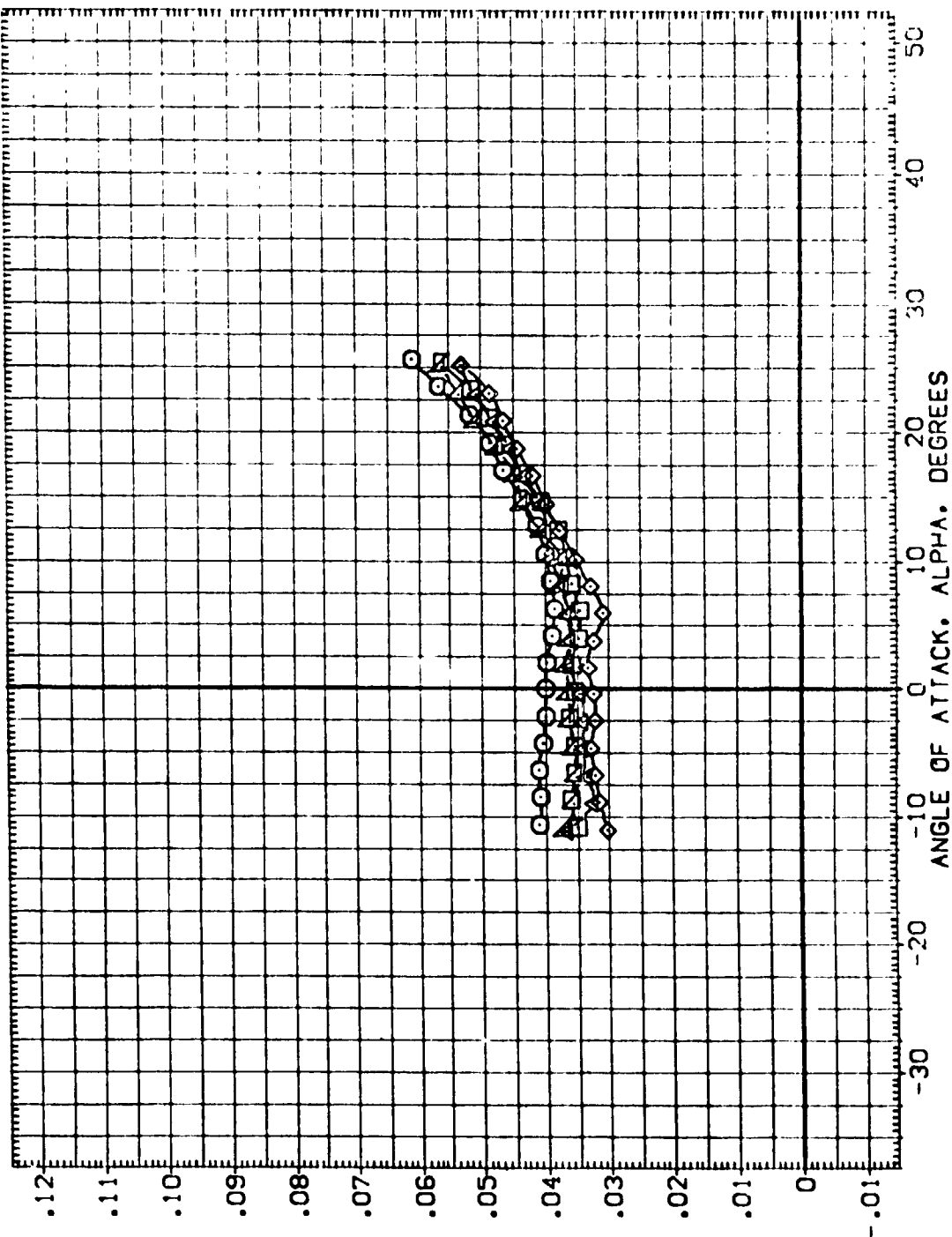


FIG 11 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
[AF8042]	0A119A B61C11F12MS1V124E49V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8043]	0A119A B61C11F12MS1V124E49V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8047]	0A119A B61C11F12MS1V124E51V19R15X29	-20.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8046]	0A119A B61C11F12MS1V124E51V19R15X29	-30.000	.000	25.000	.000	XPROP 10.6.0000 INCHES
[AF8045]	0A119A B61C11F12MS1V124E51V19R15X29	-40.000	.000	25.000	.000	YPROP 3.5.0000 INCHES
						ZPROP .0100 INCHES
						SCALE

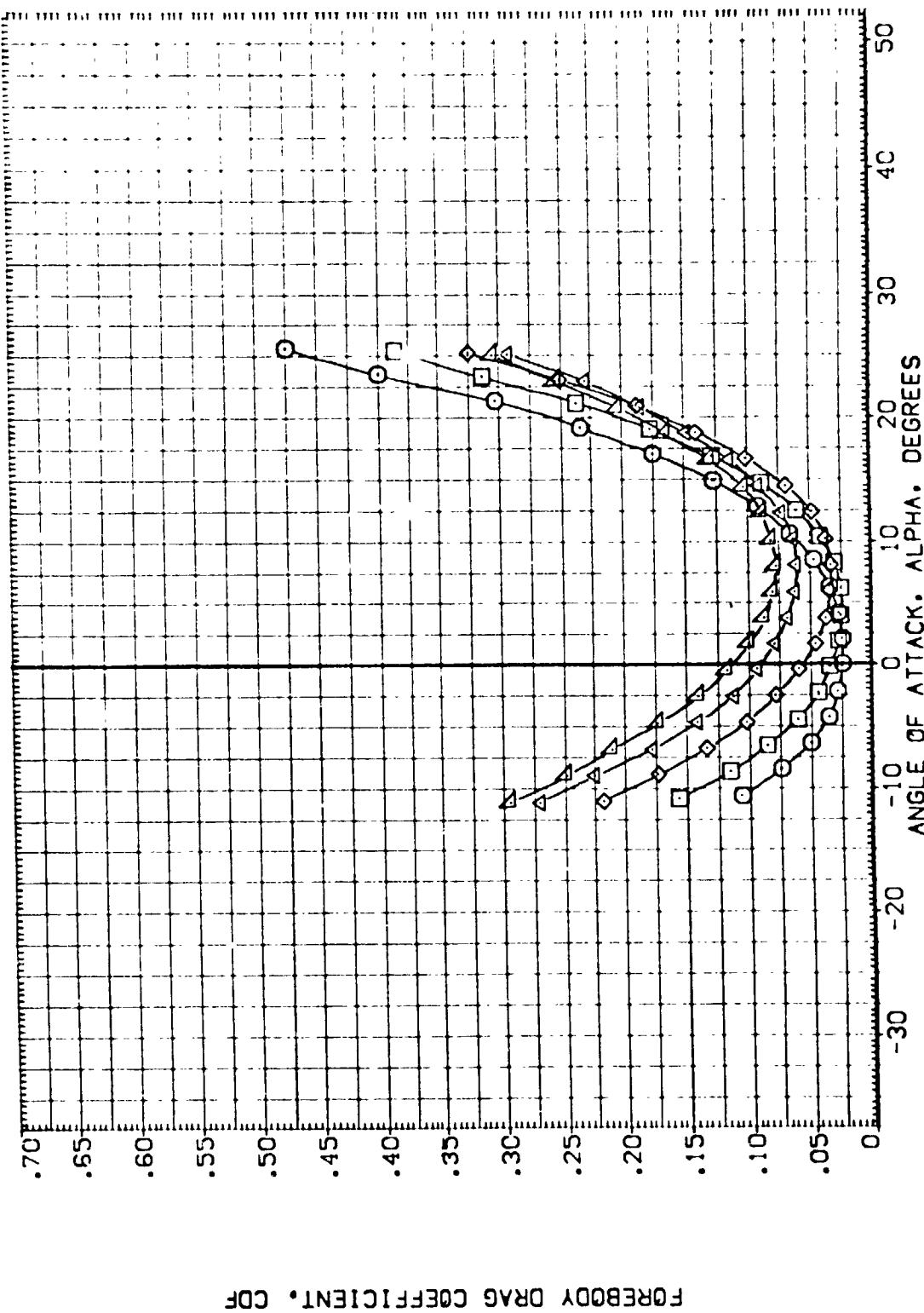


FIG 11 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPORRA	AILEON	REFERENCE INFORMATION
[AF8042]	CA119A 861C11F12451V124E49V19R15X29	.000	.000	25.000	.000	SREF 2650.0100 SQ.FT.
[AF8043]	CA119A 861C11F12451V124E49V19R15X29	-10.000	.000	25.000	.000	LREF 4774.8100 INCHES
[AF8047]	CA119A 861C11F12451V124E51V19R15X29	-20.000	.000	25.000	.000	BREF 9336.6800 INCHES
[AF8046]	CA119A 861C11F12451V124E51V19R15X29	-30.000	.000	25.000	.000	YMRP 1076.1800 INCHES
[AF8045]	CA119A 861C11F12451V124E51V19R15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .04CS

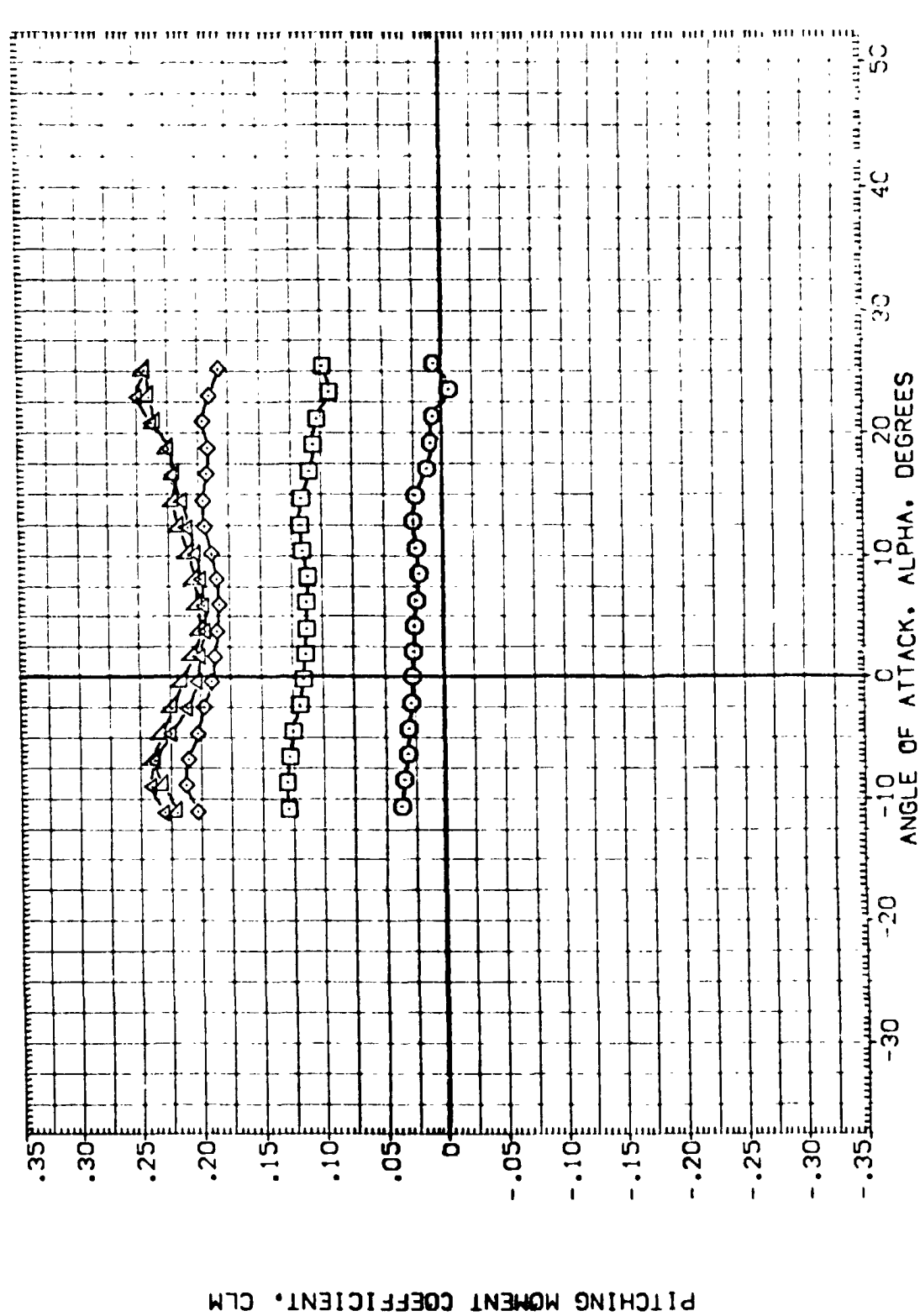


FIG 11 ELEVON EFFECTIVENESS - ELEVONS 549 AND 551 (NEGATIVE ELEVON DEFLECTIONS)

DATA SET SYMBOL	CONF:IGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
[AF8042]	0A119A 861C1F 275 V124E49V19915X29	.000	.000	25.000	.000	2690.0100 SQ.FT.
[AF8043]	0A119A 861C1F 275 V124E49V19915X29	-10.000	.000	25.000	.000	474.8100 NCIES
[AF8044]	0A119A 861C1F 275 V124E49V19915X29	-20.000	.000	25.000	.000	936.6800 NCIES
[AF8045]	0A119A 861C1F 275 V124E49V19915X29	-30.000	.000	25.000	.000	10 8.4800 NCIES
		-40.000	.000	25.000	.000	975.0000 NCIES
						SCALE

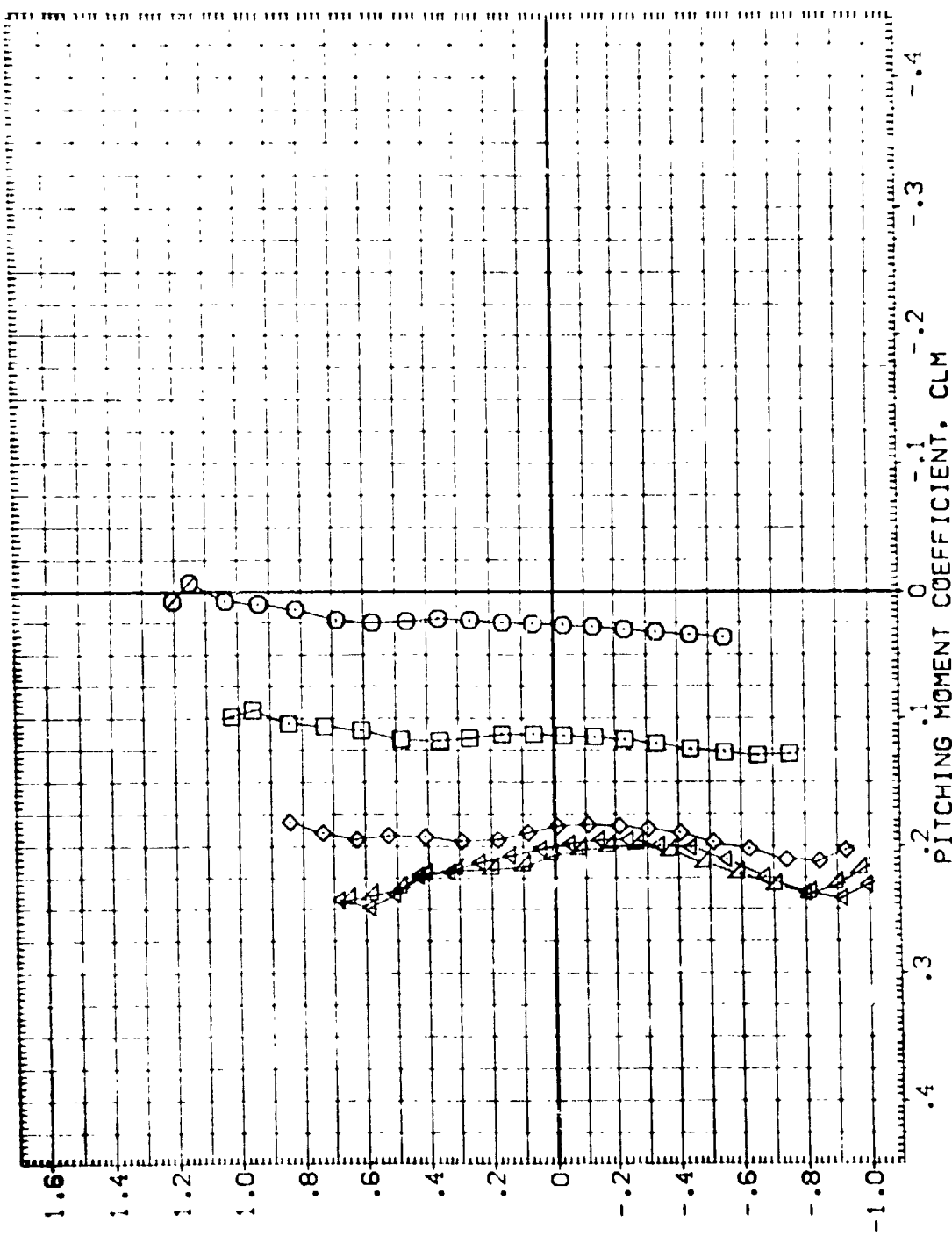


FIG 11 ELEVON EFFECTIVENESS - ELEVONS E49 AND E51 (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AIRLON	REFERENCE INFORMATION
[AF8042]	DA119A B61C1F12451V124E49V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8043]	DA119A B61C1F12451V124E49V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8047]	DA119A B61C1F12451V124E51V19R15X29	-20.000	.000	25.000	.000	BREF 936.8800 INCHES
[AF8046]	DA119A B61C1F12451V124E51V19R15X29	-30.000	.000	25.000	.000	XREF 1076.0000 INCHES
[AF8045]	DA119A B61C1F12451V124E51V19R15X29	-40.000	.000	25.000	.000	ZREF 375.0000 INCHES
						SCALE 10.000

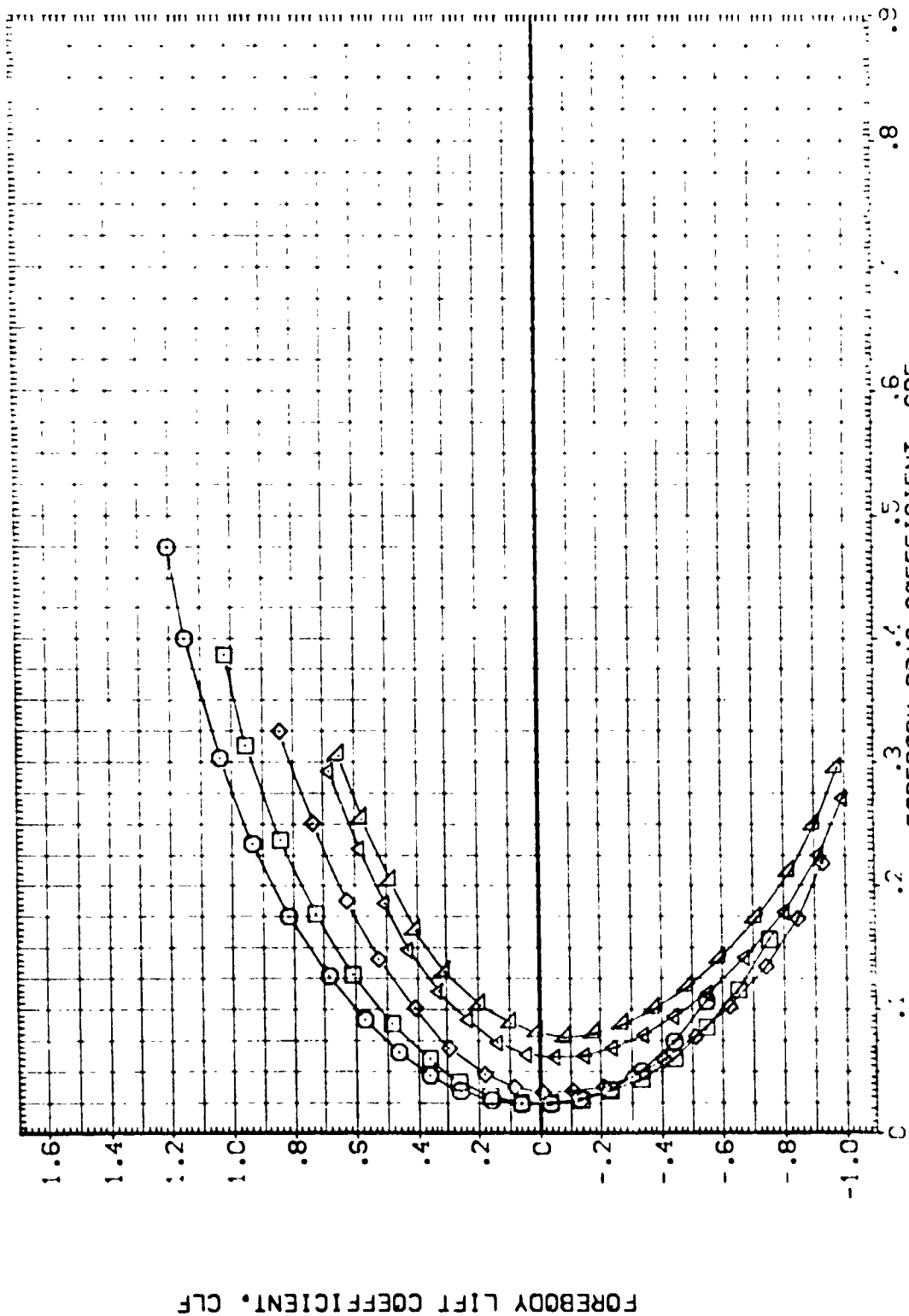


FIG 11 ELEVON EFFECTIVENESS - ELEVONS 548 AND 551 (NEGATIVE ELEVON DEFLECTIONS)

(M)MACH = .26

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DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (AF8042) 0A119A 86 C1 F 2MS V124E4SV 98 SX28
 (AF8043) 0A119A 86 C1 F 2MS V124E4SV 98 SX29
 (AF8044) 0A119A 86 C1 F 2MS V124E4SV 98 SX30
 (AF8045) 0A119A 86 C1 F 2MS V124E4SV 98 SX31

BOFLAP SPOBRK AILRON REFERENCE INFORMATION
 .000 .000 .000 SREF .0590 .0100 SCALE
 .000 .000 .000 LBREF 474.8100 SCALE
 .000 .000 .000 BRREF 936.6800 SCALE
 .000 .000 .000 XREF 1076.4800 SCALE
 .000 .000 .000 YREF 375.0000 SCALE
 .000 .000 .000 ZREF 375.0000 SCALE

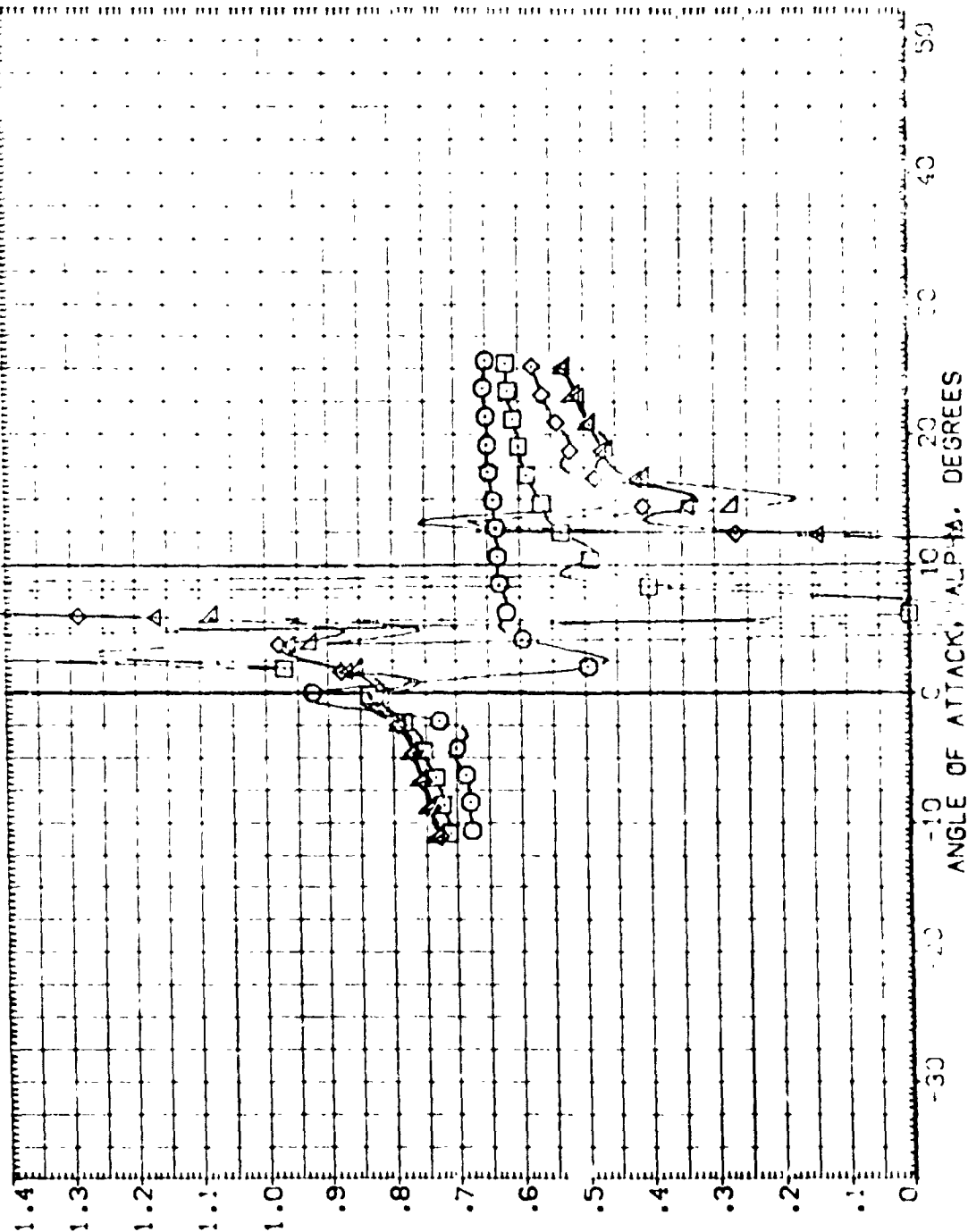


FIG 11 ELEVON EFFECTIVENESS - ELEVONS EAST AND WEST (NEGATIVE ELEVON DEFLECTIONS)

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
[AF8001]	DA119A 861C1F12461V124E46V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8004]	DA119A 861C1F12461V124E47V1SR15X29	.000	.000	25.000	.000	LREF 74.8100 INCHES
[AF8004]	DA119A 861C1F12461V124E48V1SR15X29	.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8005]	DA119A 861C1F12461V124E46V1SR15X29	5.000	.000	25.000	.000	XMRP 1076.4800 INCHES
[AF8034]	DA119A 861C1F12461V124E47V1SR15X29	5.000	.000	25.000	.000	YMRP 375.0000 INCHES
[AF8035]	DA119A 861C1F12461V124E48V1SR15X29	5.000	.000	25.000	.000	SCALE .0405

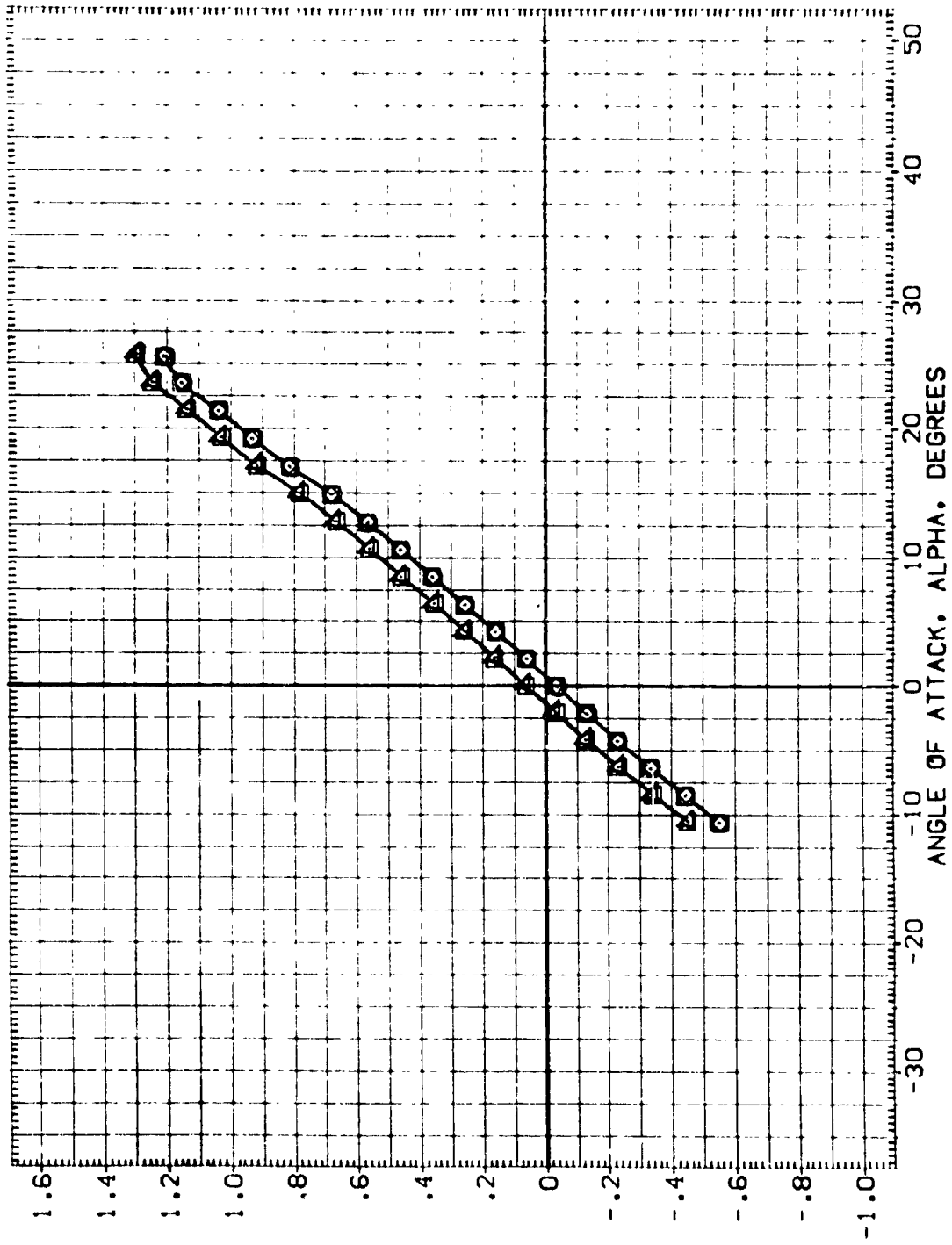


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
[AF8001]	DA119A B61C11F12V51V124E46V19R15X29	.000	.000	25.000	.000	2690.0130 SO.FT.
[AF8001]	DA119A B61C11F12V51V124E47V19R15X29	.000	.000	25.000	.000	474.8130 INC-ES
[AF8004]	DA119A B61C11F12V51V124E46V19R15X29	.000	.000	25.000	.000	956.6800 INC-ES
[AF8036]	DA119A B61C11F12V51V124E46V19R15X29	5.000	.000	25.000	.000	1076.4800 INC-ES
[AF8034]	DA119A B61C11F12V51V124E47V19R15X29	5.000	.000	25.000	.000	.0000 INC-ES
[AF8035]	DA119A B61C11F12V51V124E46V19R15X29	5.000	.000	25.000	.000	375.0000 INC-ES
						SCALE

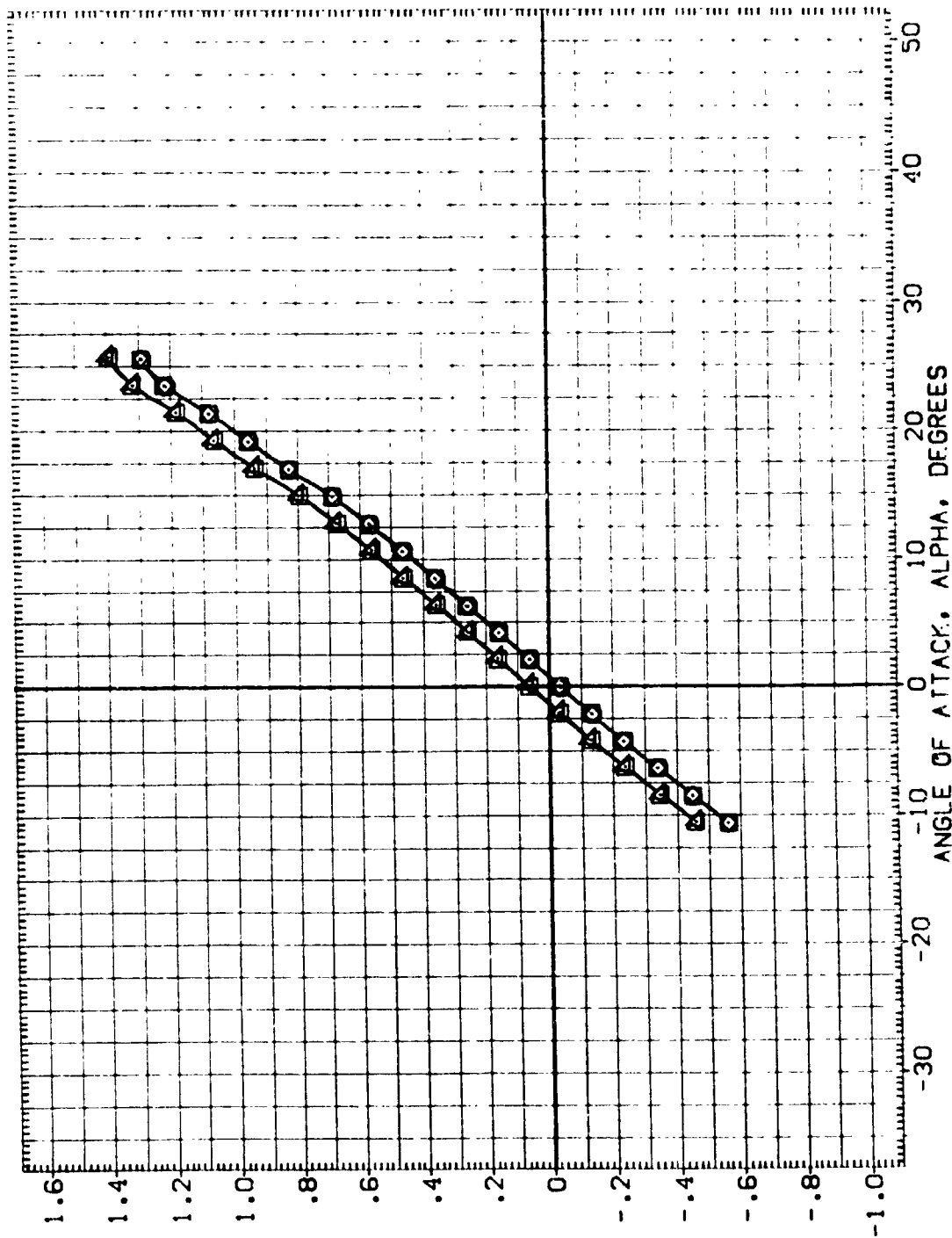


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS. ELEVON = 0 AND 5 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION	SCALE
(AF8001)	0A119A 861C11F 2751V124E46V19R15X29	.000	.000	25.000	.000	SREF 2690.0100	50.FT.
(AF8004)	0A119A 861C11F 2751V124E47V19R15X29	.000	.000	25.000	.000	LREF 474.8100	NCES
(AF8004)	0A119A 861C11F 2751V124E48V19R15X29	.000	.000	25.000	.000	BREF 936.5800	NCES
(AF8036)	0A119A 861C11F 2751V124E46V19R15X29	5.000	.000	25.000	.000	XMRP 1076.4800	NCES
(AF8034)	0A119A 861C11F 2751V124E47V19R15X29	5.000	.000	25.000	.000	YMRP .0000	NCES
(AF8035)	0A119A 861C11F 2751V124E48V19R15X29	5.000	.000	25.000	.000	ZMRP 375.0000	NCES
							SCALE

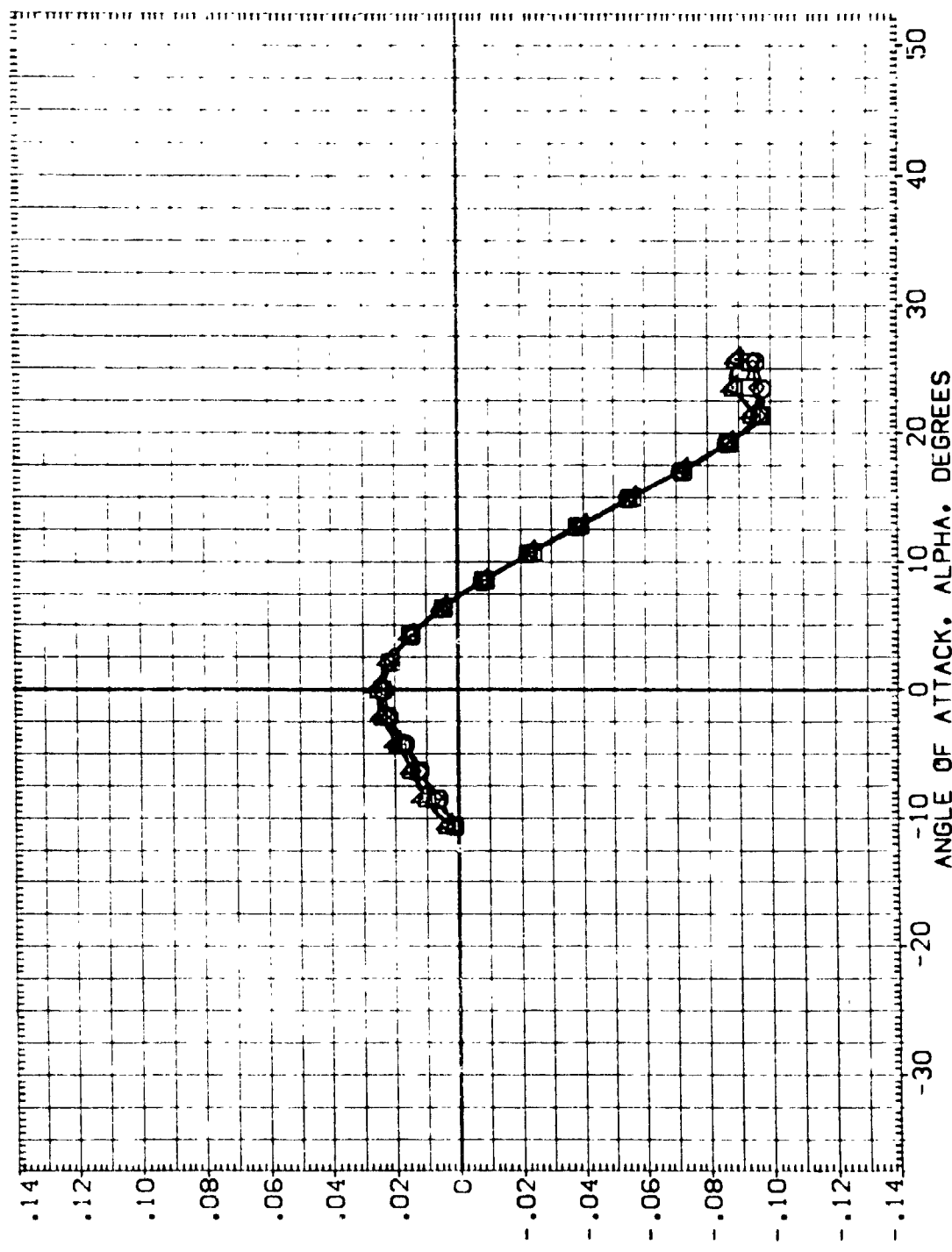


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG
 (A)MACH = .26
 PAGE 83

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AF8001)	0A11SA	861C11F1	2751V1	24E46V1	9R13X29
(AF8004)	0A11SA	861C11F1	2751V1	24E47V1	9R13X29
(AF8004)	0A11SA	861C11F1	2751V1	24E48V1	9R13X29
(AF8036)	0A11SA	861C11F1	2751V1	24E46V1	9R13X29
(AF8034)	0A11SA	861C11F1	2751V1	24E47V1	9R13X29
(AF8035)	0A11SA	861C11F1	2751V1	24E46V1	9R13X29

ELEVON 80FLAP SPDBRK AILRON REFERENCE INFORMATION

.000	.000	.000	SREF	2650.0100	50.FT.
.000	.000	.000	LREF	474.8100	INC-ES
.000	.000	.000	BREF	936.6800	INC-ES
.000	.000	.000	XMRP	1076.2800	INC-ES
.000	.000	.000	YMRP	375.0000	INC-ES
.000	.000	.000	ZMRP	375.0000	INC-ES
.000	.000	.000	SCALE	.0105	SCALE

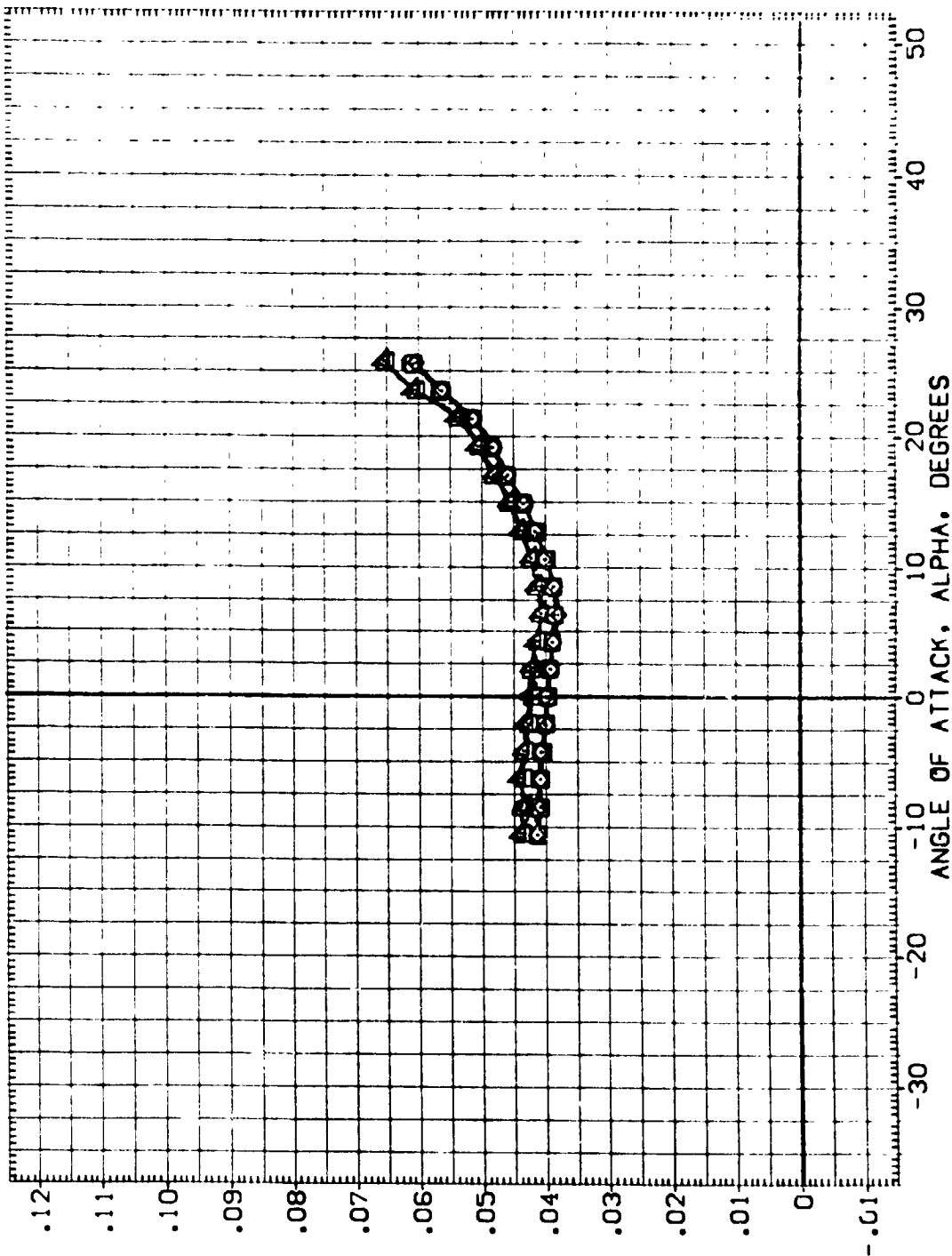


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS. ELEVON = 0 AND 5 DEG
(AJMACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AIRLON	REFERENCE INFORMATION
(AF8001)	0A119A B61C11F12751V124E46V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT
(AF8004)	0A119A B61C11F12751V124E47V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8036)	0A119A B61C11F12751V124E48V19R15X29	.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8034)	0A119A B61C11F12751V124E47V19R15X29	5.000	.000	25.000	.000	XMRP 1076.1800 INCHES
(AF8035)	0A119A B61C11F12751V124E48V19R15X29	5.000	.000	25.000	.000	YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405 SCALE

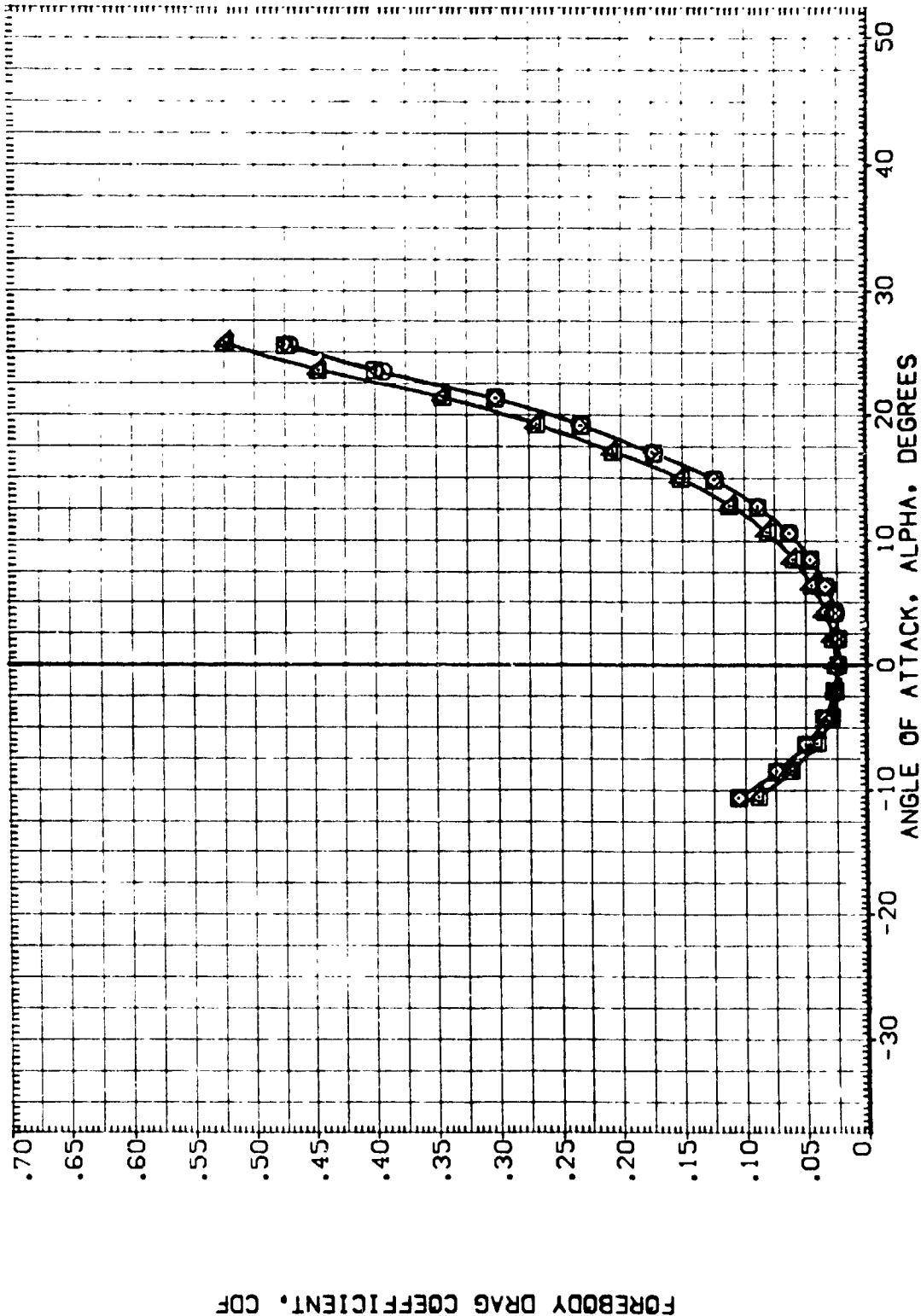


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8001)	0A119A B61C1F12751V124E46V1SR1SX29	.000	.000	25.000	.000	SREF 2680.0100 50.000
(AF8002)	0A119A B61C1F12751V124E47V1SR1SX29	.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8003)	0A119A B61C1F12751V124E48V1SR1SX29	.000	.000	25.000	.000	BREF 536.6800 INCHES
(AF8004)	0A119A B61C1F12751V124E49V1SR1SX29	.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8005)	0A119A B61C1F12751V124E50V1SR1SX29	.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8006)	0A119A B61C1F12751V124E51V1SR1SX29	.000	.000	25.000	.000	ZMRP 375.0000 INCHES
(AF8007)	0A119A B61C1F12751V124E52V1SR1SX29	.000	.000	25.000	.000	SCALE .0405 SCALE

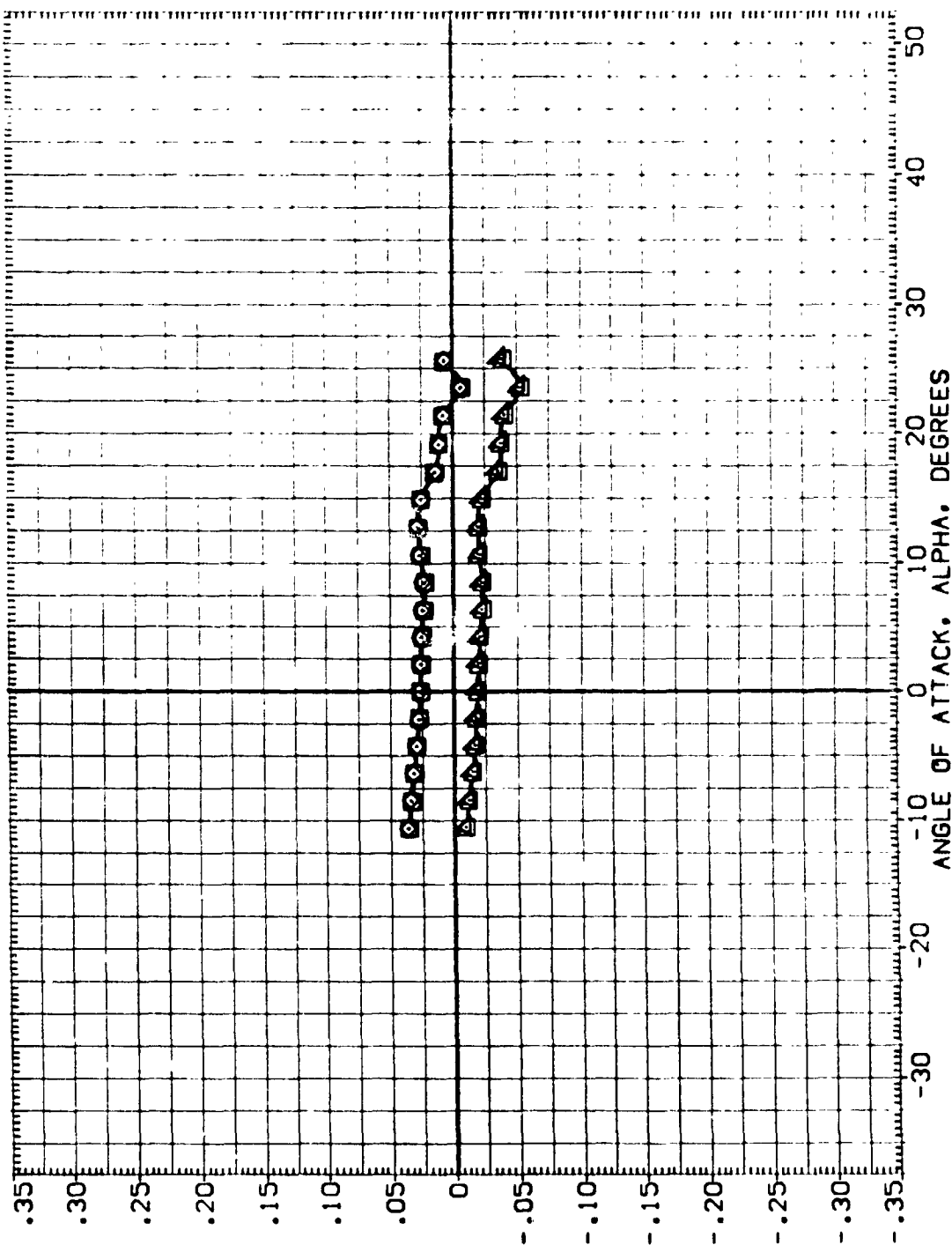


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG
(A)MACH = .26 PAGE 86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
(AF8001)	0A119A B61C11F 2V61V124E46V1SR15X29	.000	.000	23.000	.000	SREF 2690.0100 SQ.FT.
(AF8001)	0A119A B61C11F 2V61V124E47V1SR15X29	.000	.000	23.000	.000	LREF 474.8100 INCHES
(AF8001)	0A119A B61C11F 2V61V124E48V1SR15X29	.000	.000	23.000	.000	BREF 936.6800 INCHES
(AF8001)	0A119A B61C11F 2V61V124E46V1SR15X29	5.000	.000	23.000	.000	XMRP 1076.4800 INCHES
(AF8001)	0A119A B61C11F 2V61V124E47V1SR15X29	5.000	.000	23.000	.000	YMRP .0000 INCHES
(AF8001)	0A119A B61C11F 2V61V124E48V1SR15X29	5.000	.000	23.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

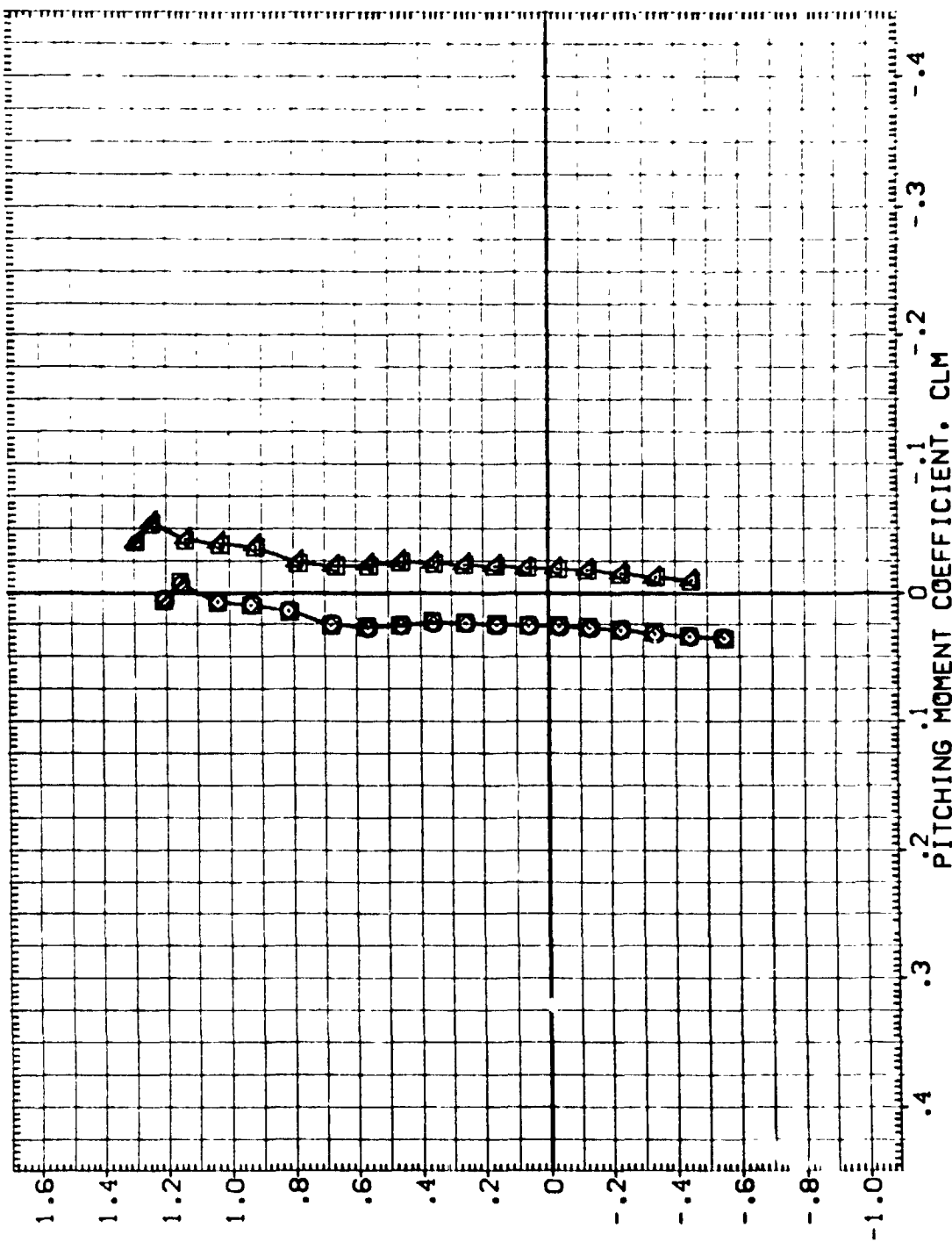


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
(AF8001)	0A119A B61C1F12V51V124E46V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8001)	0A119A B61C1F12V51V124E46V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8004)	0A119A B61C1F12V51V124E46V19R15X29	.000	.000	25.000	.000	BREF 938.6900 INCHES
(AF8036)	0A119A B61C1F12V51V124E46V19R15X29	5.000	.000	25.000	.000	KREF 1076.4800 INCHES
(AF8034)	0A119A B61C1F12V51V124E46V19R15X29	5.000	.000	25.000	.000	ZREF 375.0000 INCHES
(AF8035)	0A119A B61C1F12V51V124E46V19R15X29	5.000	.000	25.000	.000	SCALE .0405 INCHES

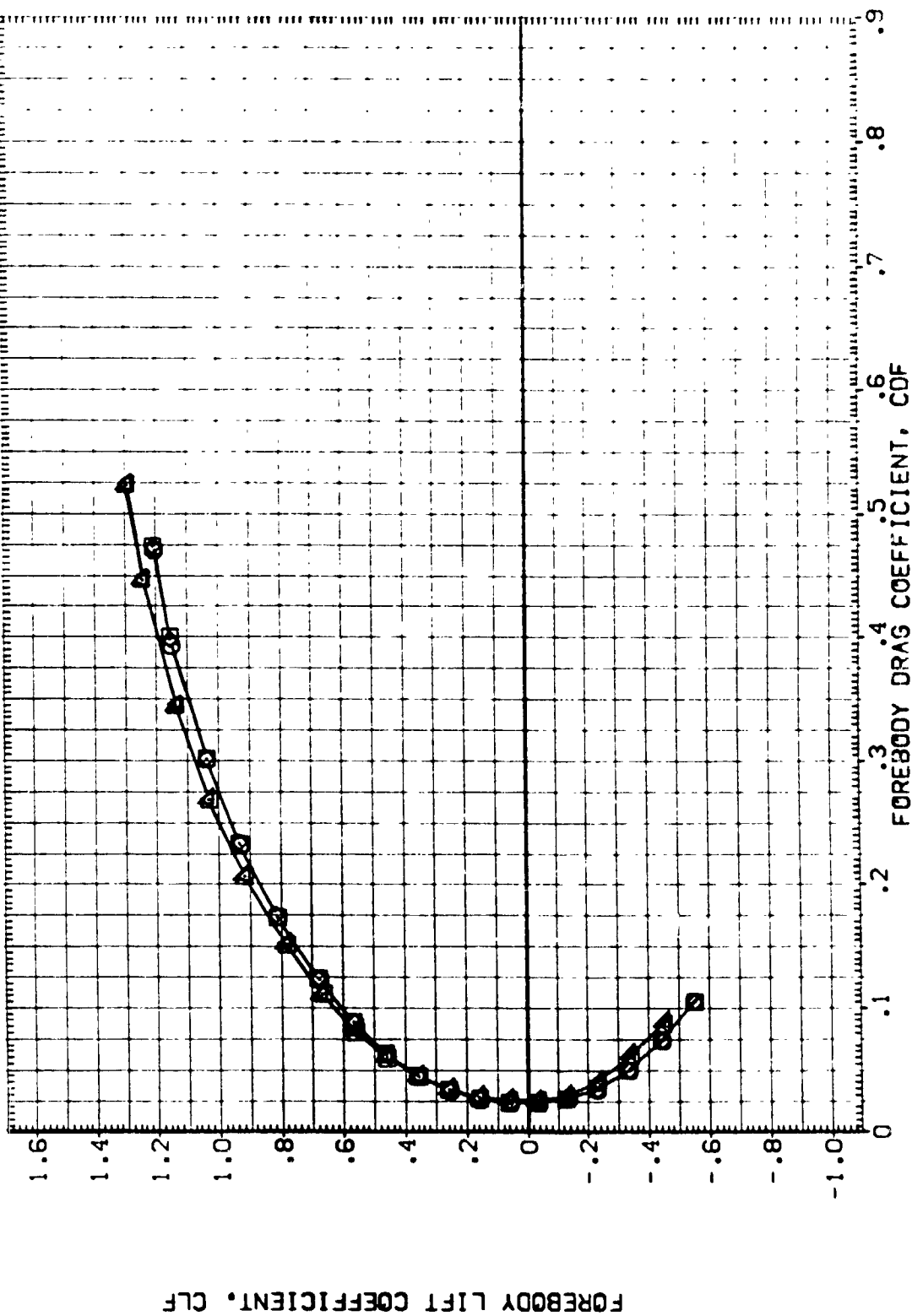


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8001)	0A119A 861C1F12451V124E46V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8041)	0A119A 861C1F12451V124E47V1SR15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8004)	0A119A 861C1F12451V124E48V1SR15X29	.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8036)	0A119A 861C1F12451V124E46V1SR15X29	5.000	.000	25.000	.000	XPRP 1076.1800 INCHES
(AF8034)	0A119A 861C1F12451V124E47V1SR15X29	5.000	.000	25.000	.000	YPRP .0000 INCHES
(AF8035)	0A119A 861C1F12451V124E48V1SR15X29	5.000	.000	25.000	.000	ZPRP .0000 INCHES
						SCALE .0405

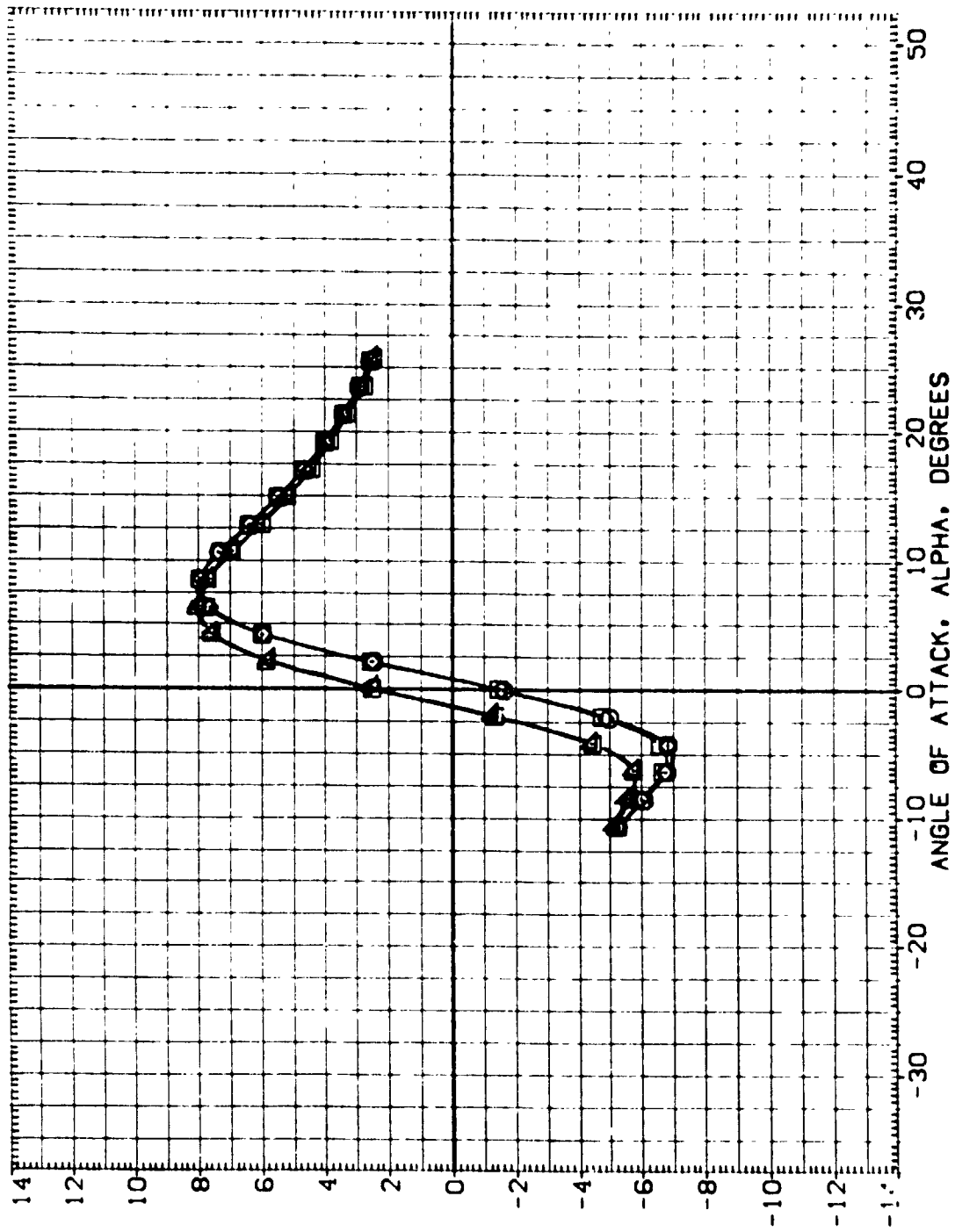


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 0 AND 5 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILERON	REFERENCE INFORMATION
(AF8001)	0A119A B61C1F12P51V124E46V1SR15X29	.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8004)	0A119A B61C1F12P51V124E47V1SR15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8006)	0A119A B61C1F12P51V124E48V1SR15X29	.000	.000	25.000	.000	BREF 936.8800 INCHES
(AF8034)	0A119A B61C1F12P51V124E46V1SR15X29	5.000	.000	25.000	.000	XPRP 1076.4800 INCHES
(AF8035)	0A119A B61C1F12P51V124E48V1SR15X29	5.000	.000	25.000	.000	ZPRP 375.0000 INCHES
						SCALE .0405

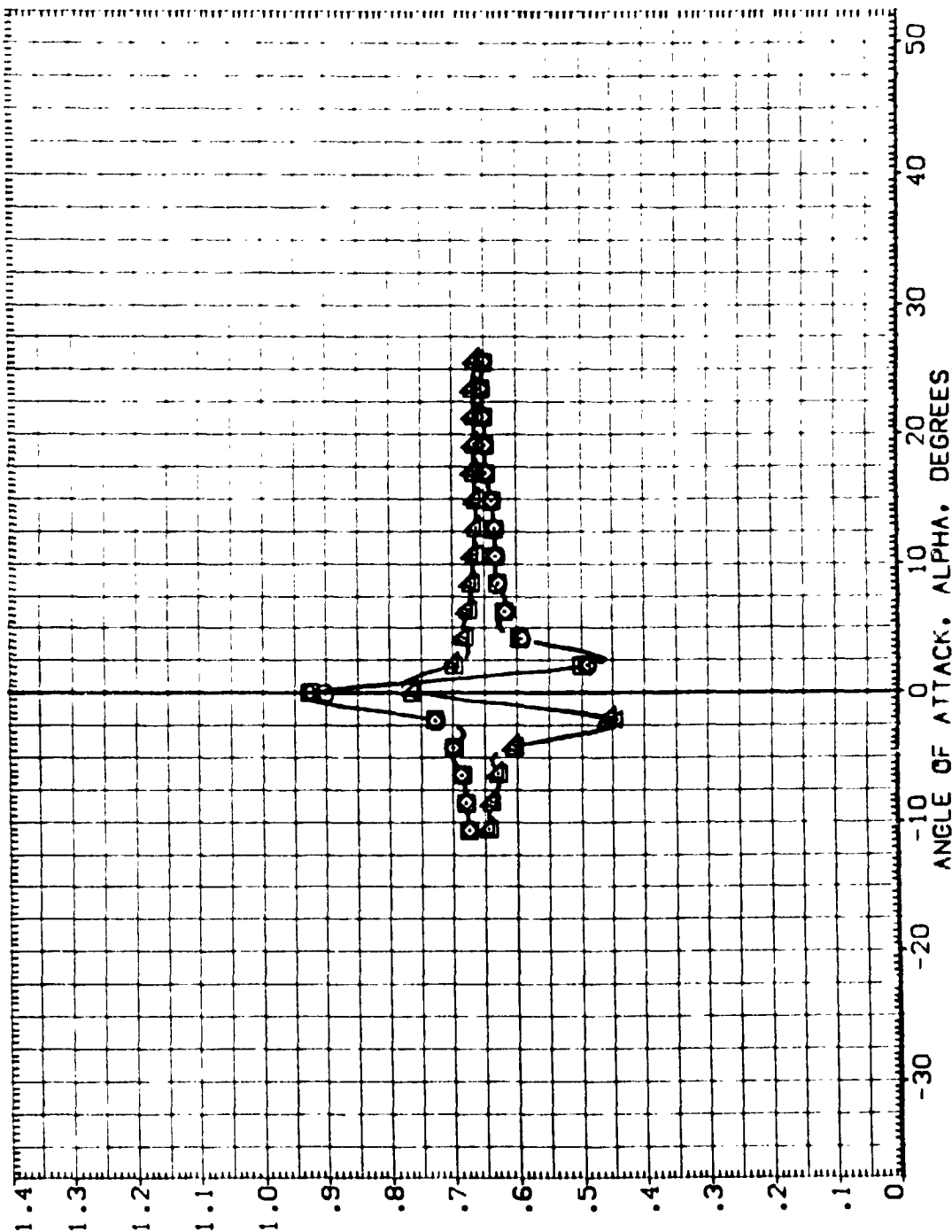


FIG 12 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS. ELEVON = 0 AND 5 DEG
 (A)MACH = .26 PAGE 90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8021)	DA119A B61C11F12H51V124E46V19R15X29	10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8025)	DA119A B61C11F12H51V124E47V19R15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	DA119A B61C11F12H51V124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8061)	DA119A B61C11F12H51V124E46V19R15X29	15.000	.000	25.000	.000	XPRP 1076.4800 INCHES
(AF8049)	DA119A B61C11F12H51V124E47V19R15X29	15.000	.000	25.000	.000	YPRP .0000 INCHES
(AF8050)	DA119A B61C11F12H51V124E48V19R15X29	15.000	.000	25.000	.000	ZPRP 375.0000 INCHES
						SCALE .0405

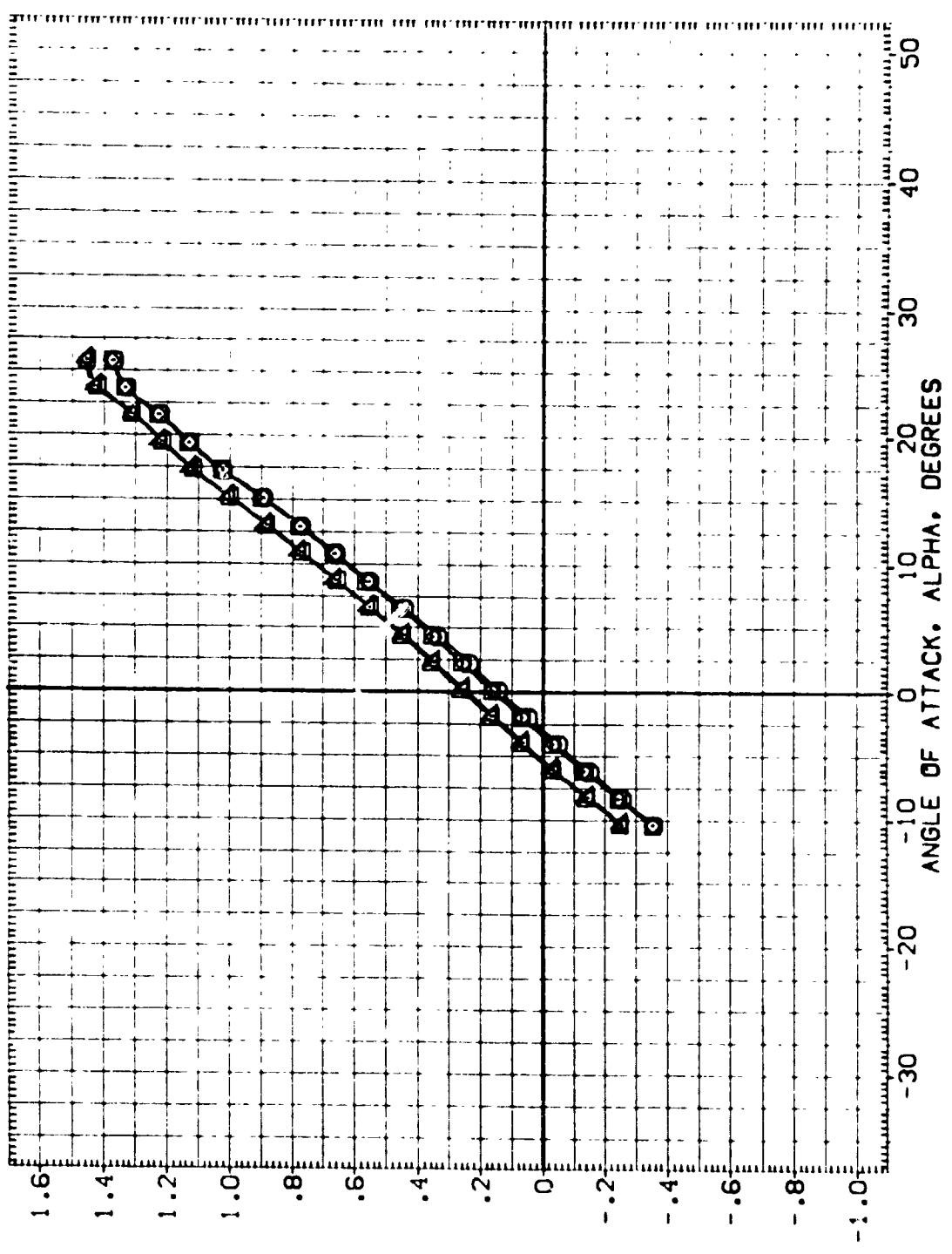


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG

(A)MACH = .26

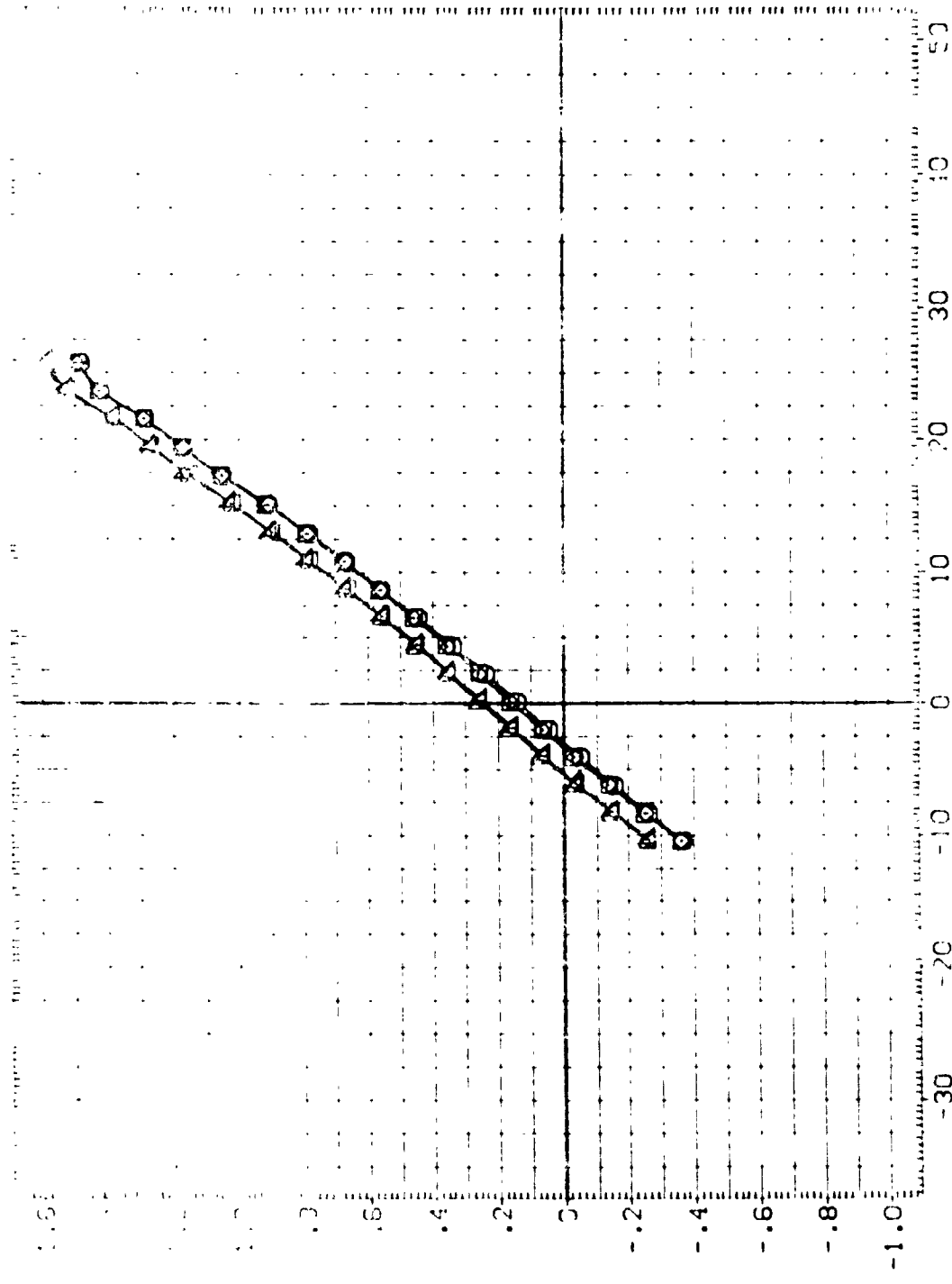


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG
 (A) MACH = .25



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
(AF8021)	Q119A B61C1F124G1V124E46V19R15X29	10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8023)	Q119A B61C1F124G1V124E47V19R15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	Q119A B61C1F124G1V124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8061)	Q119A B61C1F124G1V124E46V19R15X29	15.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8049)	Q119A B61C1F124G1V124E47V19R15X29	15.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8050)	Q119A B61C1F124G1V124E48V19R15X29	15.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

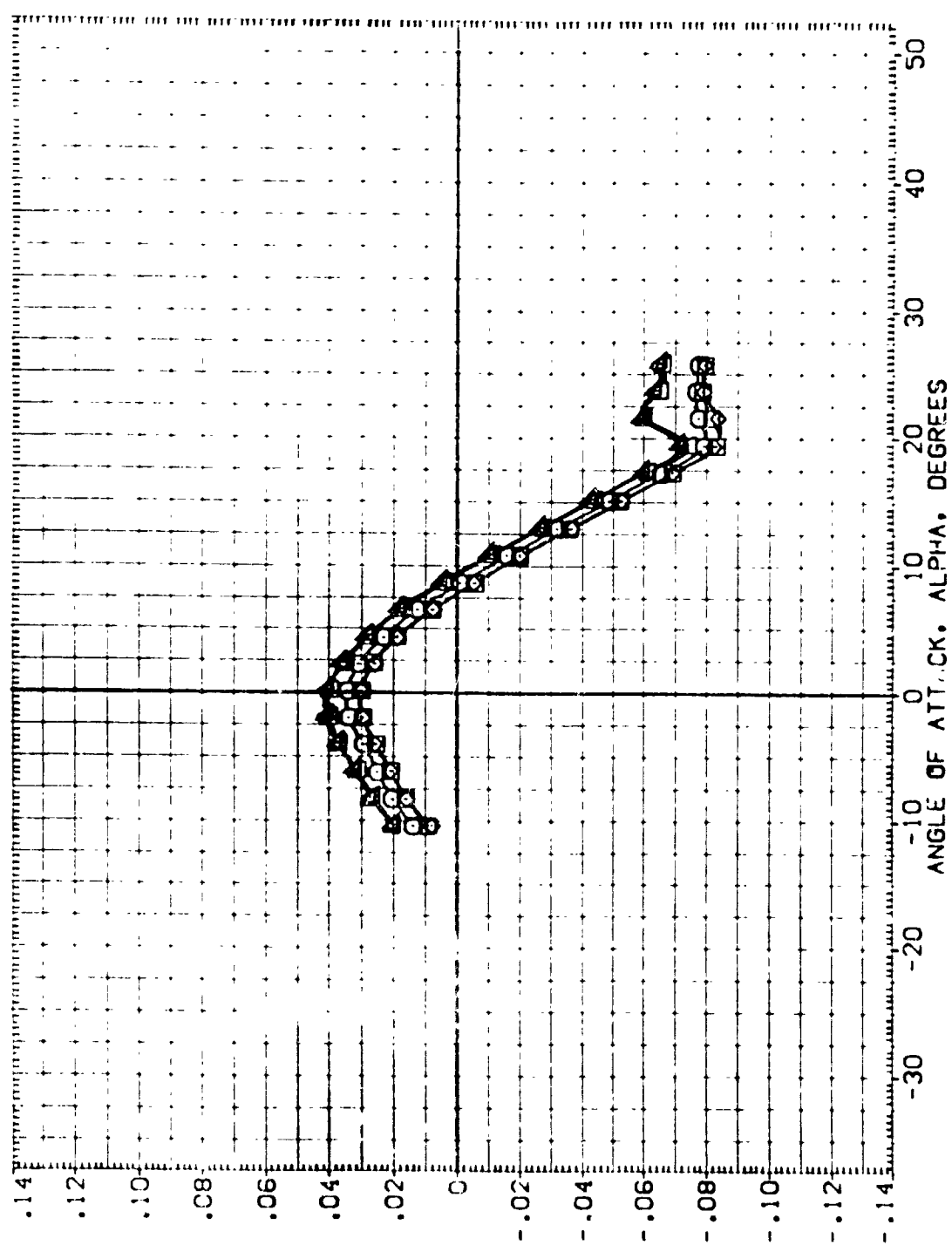


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG
 (A)MACH = .26 PAGE 33

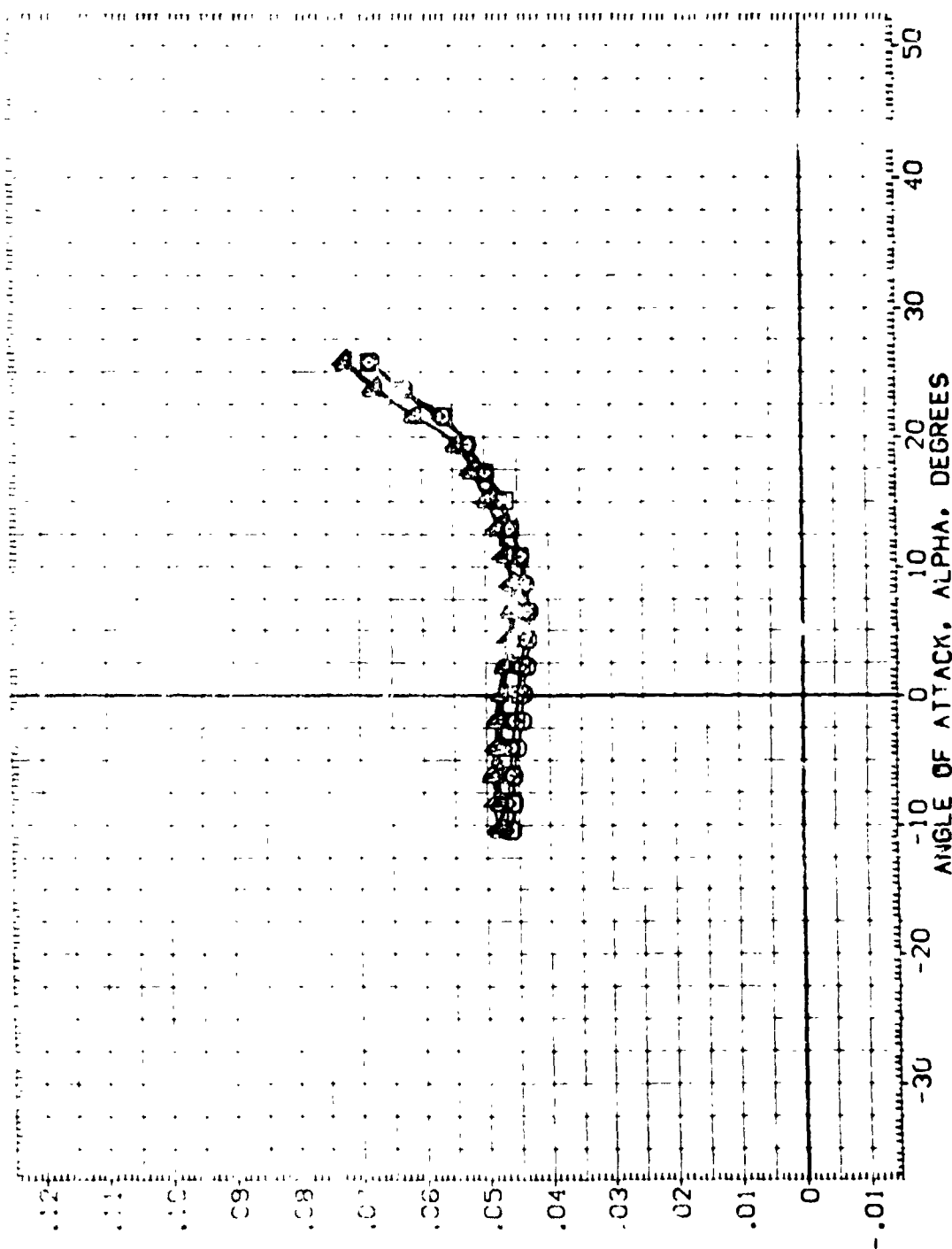
[illegible]

FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS. ELEVON = 10 AND 15 DEG
CA/MACH = .26 PAGE 94

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
{AF8021}	0A119A B61C11F 2M51V124E46V19R15X29	10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{AF8023}	0A119A B61C11F 2M51V124E47V19R15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF8024}	0A119A B61C11F 2M51V124E46V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
{AF8061}	0A119A B61C11F 2M51V124E47V19R15X29	15.000	.000	25.000	.000	XPRP 1076.3000 INCHES
{AF8049}	0A119A B61C11F 2M51V124E47V19R15X29	15.000	.000	25.000	.000	YPRP 375.3000 INCHES
{AF8030}	0A119A B61C11F 2M51V124E48V19R15X29	15.000	.000	25.000	.000	ZPRP 0405 SCALE

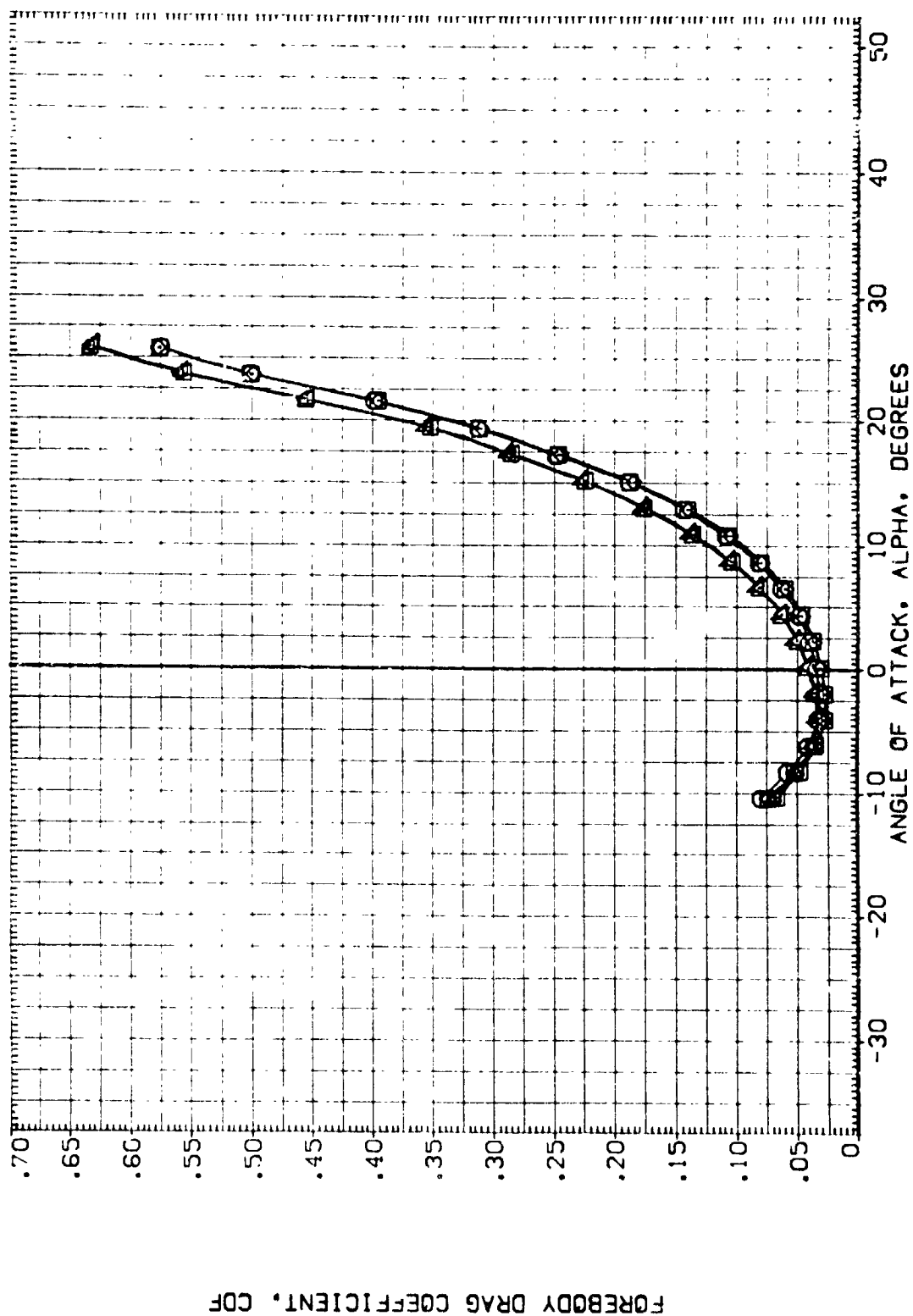


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AILERON	REFERENCE INFORMATION
(AF8021)	0A119A B61C1F12V5V124E46V19R15X29	10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8025)	0A119A B61C1F12V5V124E47V19R15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	0A119A B61C1F12V5V124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.8800 INCHES
(AF8061)	0A119A B61C1F12V5V124E46V19R15X29	15.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8049)	0A119A B61C1F12V5V124E47V19R15X29	15.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8050)	0A119A B61C1F12V5V124E48V19R15X29	15.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE 0405

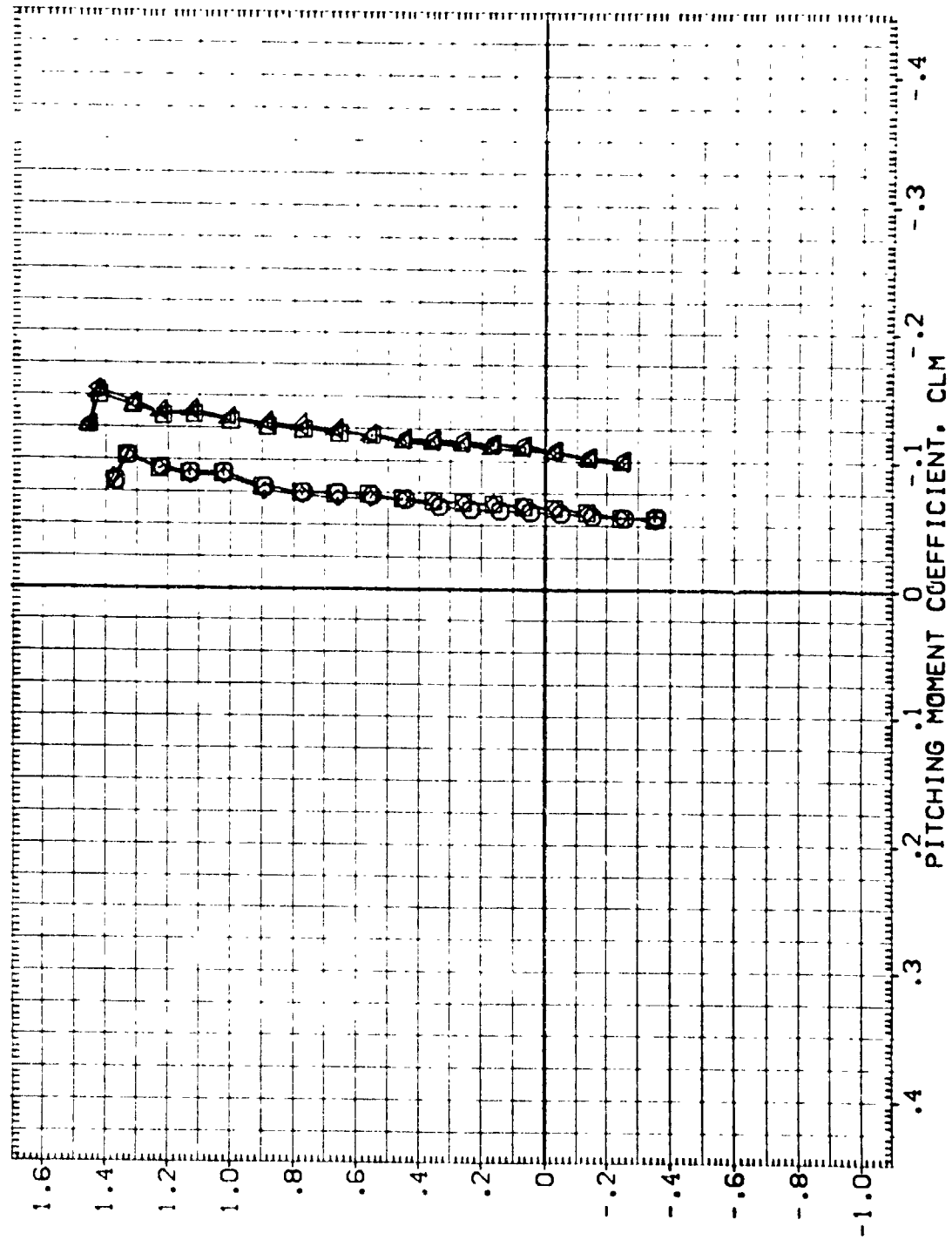


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILERON	REFERENCE INFORMATION
(AF8021)	0A119A B61C1 F1245IV 24E46V1 9R15X29	10.000	.000	25.000	.000	SREF 2690.0100 50 FT.
(AF8025)	0A119A B61C1 F1245IV 24E47V1 9R15X29	10.000	.000	25.000	.000	LREF 474.8100 100 FT.
(AF8024)	0A119A B61C1 F1245IV 24E48V1 9R15X29	10.000	.000	25.000	.000	BREF 936.6800 100 FT.
(AF8061)	0A119A B61C1 F1245IV 24E46V1 9R15X29	15.000	.000	25.000	.000	XPRP 1076.1900 100 FT.
(AF8049)	0A119A B61C1 F1245IV 24E47V1 9R15X29	15.000	.000	25.000	.000	ZPRP 375.0000 100 FT.
(AF8050)	0A119A B61C1 F1245IV 24E48V1 9R15X29	15.000	.000	25.000	.000	SCALE .0405 SCALE

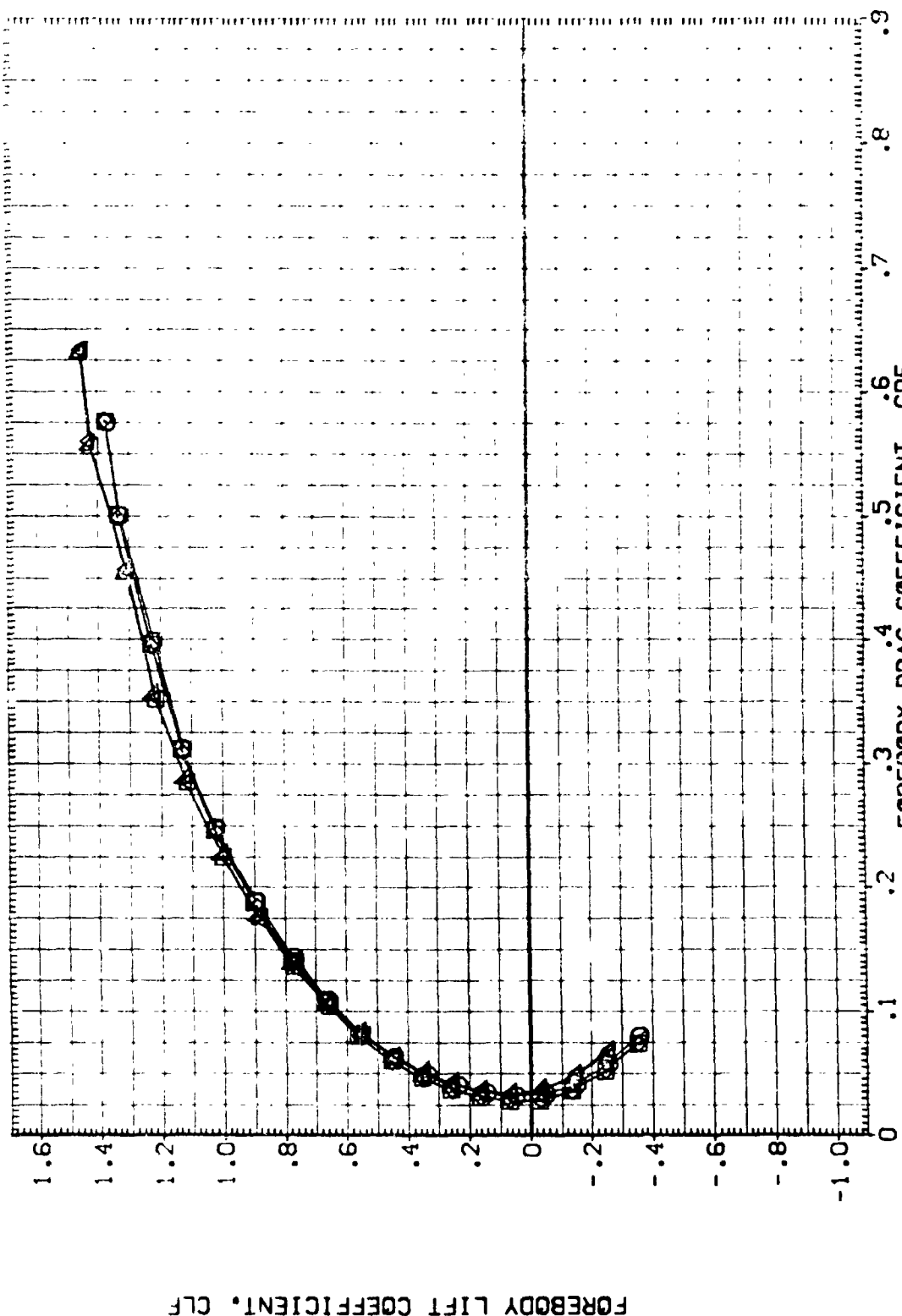


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8021)	0A119A B61C1F12V51 124E46V19R15X29	10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8025)	0A119A B61C1F12V51 124E47V19R15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	0A119A B61C1F12V51 124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.3800 INCHES
(AF8061)	0A119A B61C1F12V51 124E46V19R15X29	15.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8049)	0A119A B61C1F12V51 124E47V19R15X29	15.000	.000	25.000	.000	YMRP 3000 INCHES
(AF8050)	0A119A B61C1F12V51 124E48V19R15X29	15.000	.000	25.000	.000	ZMRP 375.3405 INCHES
						SCALE

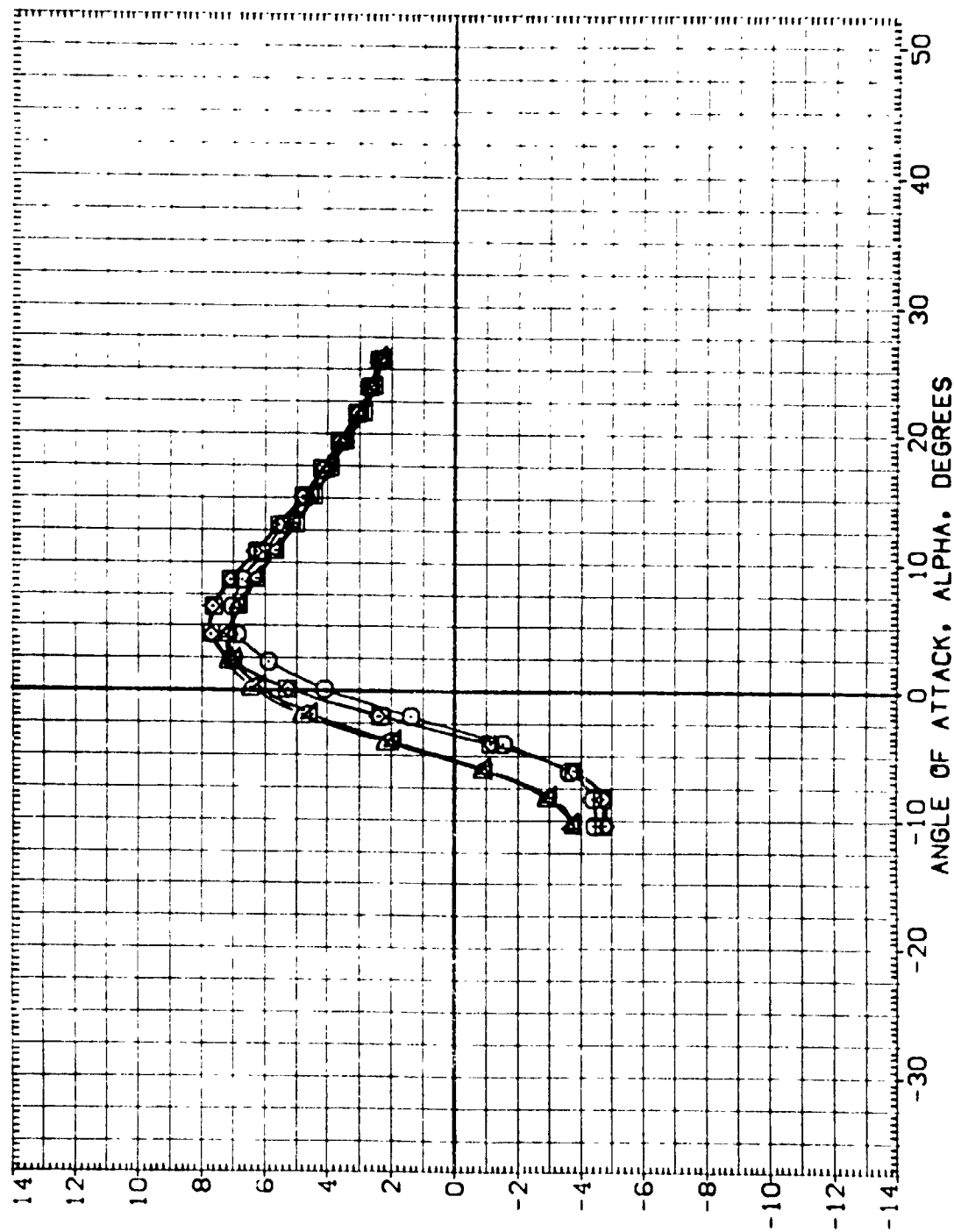


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 10 AND 15 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDFLAP	SPDBRY	AIRPKN	REFERENCE INFORMATION
(AF8021)	0A119A RS1C1F12V5V124E16V19S15X29	10.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8025)	0A119A RS1C1F12V5V124E17V19S15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	0A119A RS1C1F12V5V124E18V19S15X29	10.000	.000	25.000	.000	BREF 936.5800 INCHES
(AF8049)	0A119A RS1C1F12V5V124E16V19S15X29	15.000	.000	25.000	.000	YMRP 1076.180 INCHES
(AF8050)	0A119A RS1C1F12V5V124E17V19S15X29	15.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

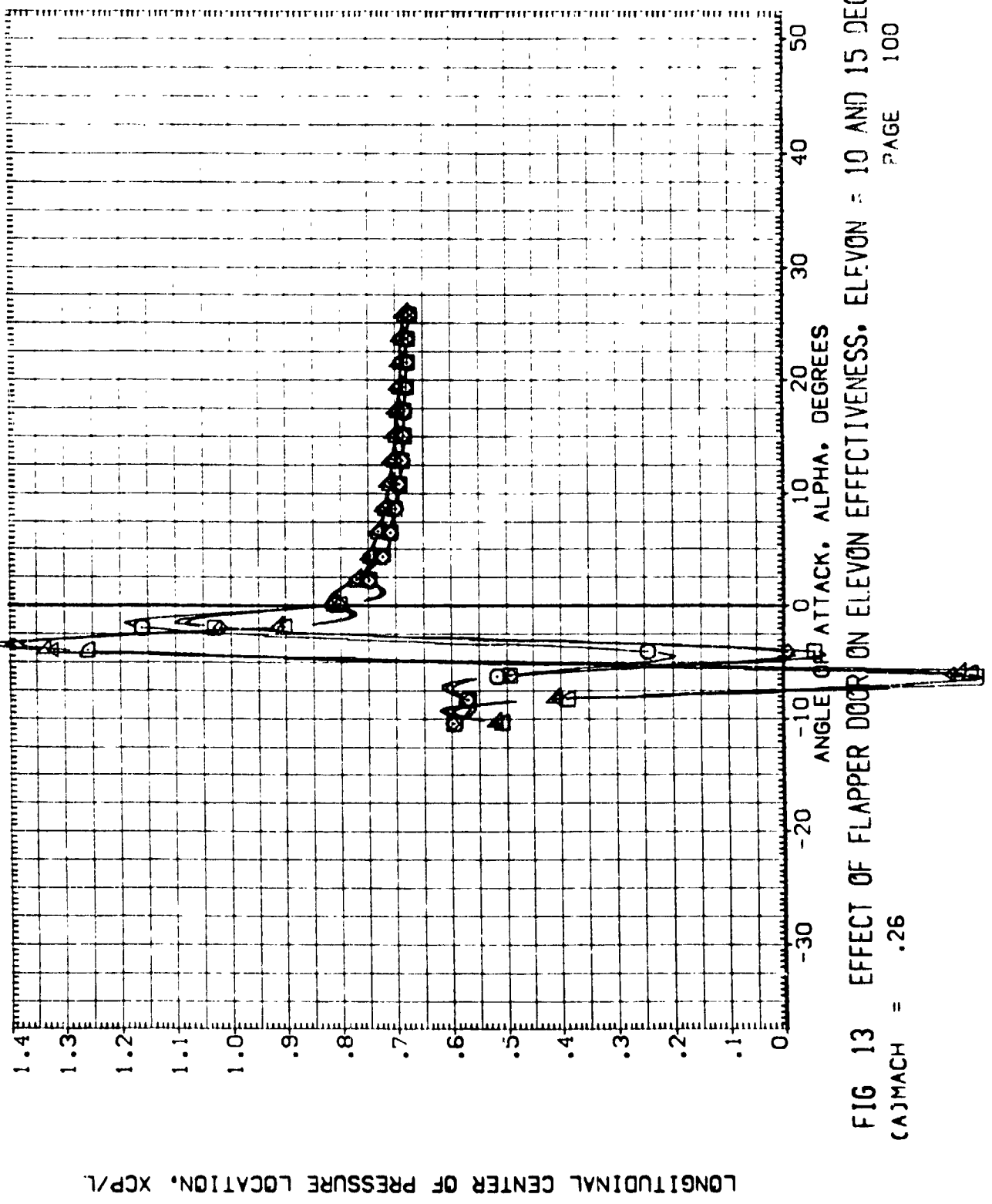


FIG 13 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS. ELEVON = 10 AND 15 DEG
 (A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

(AFB59)	0A119A 88C11F 2V51V124E46V19R15X29	SREF 2690.0100	50 FT
(AFB051)	0A119A 88C11F 2V51V124E47V19R15X29	LREF 474.8100	INCHES
(AFB052)	0A119A 88C11F 2V51V124E48V19R15X29	BREF 936.6800	INCHES
		XMRP 1076.4800	INCHES
		YMRP .0000	INCHES
		ZMRP 375.0000	INCHES
		SCALE .0405	SCALE

ELEVON DELAP SPOBRK ALLRON

20.000	.000	25.000	.000
20.000	.000	25.000	.000
20.000	.000	25.000	.000

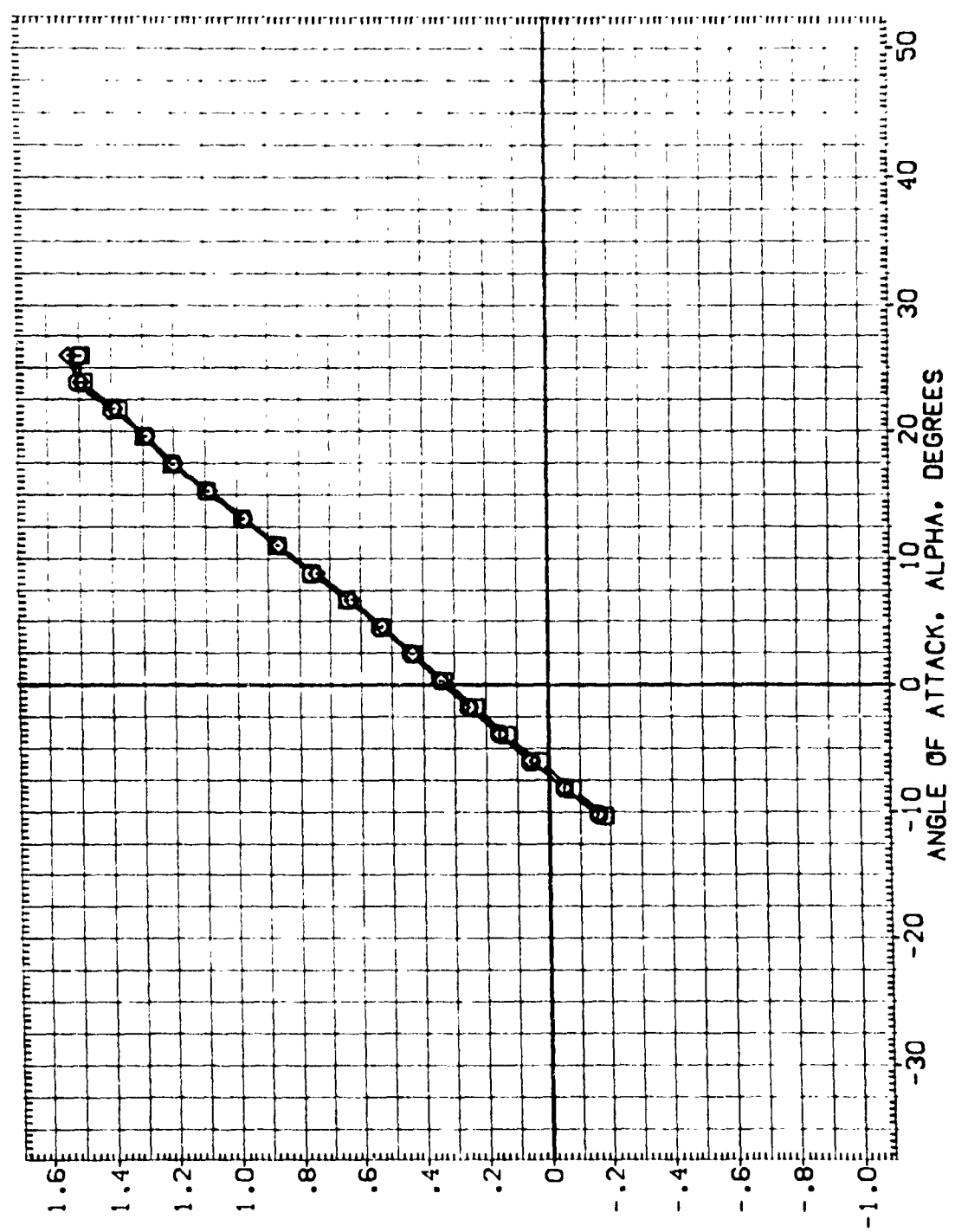


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	8DFLAP	SPDRBK	AILRON	REFERENCE INFORMATION
{ AF8059 }	0A119A BS1C11F12V51V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT
{ AF8051 }	0A119A BS1C11F12V51V124E47V19R15X29	20.000	.000	25.000	.000	LREF 474.8100 INCHES
{ AF8052 }	0A119A BS1C11F12V51V124E48V19R15X29	20.000	.000	25.000	.000	BREF 936.6800 INCHES
						XMRP 1076.1800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405

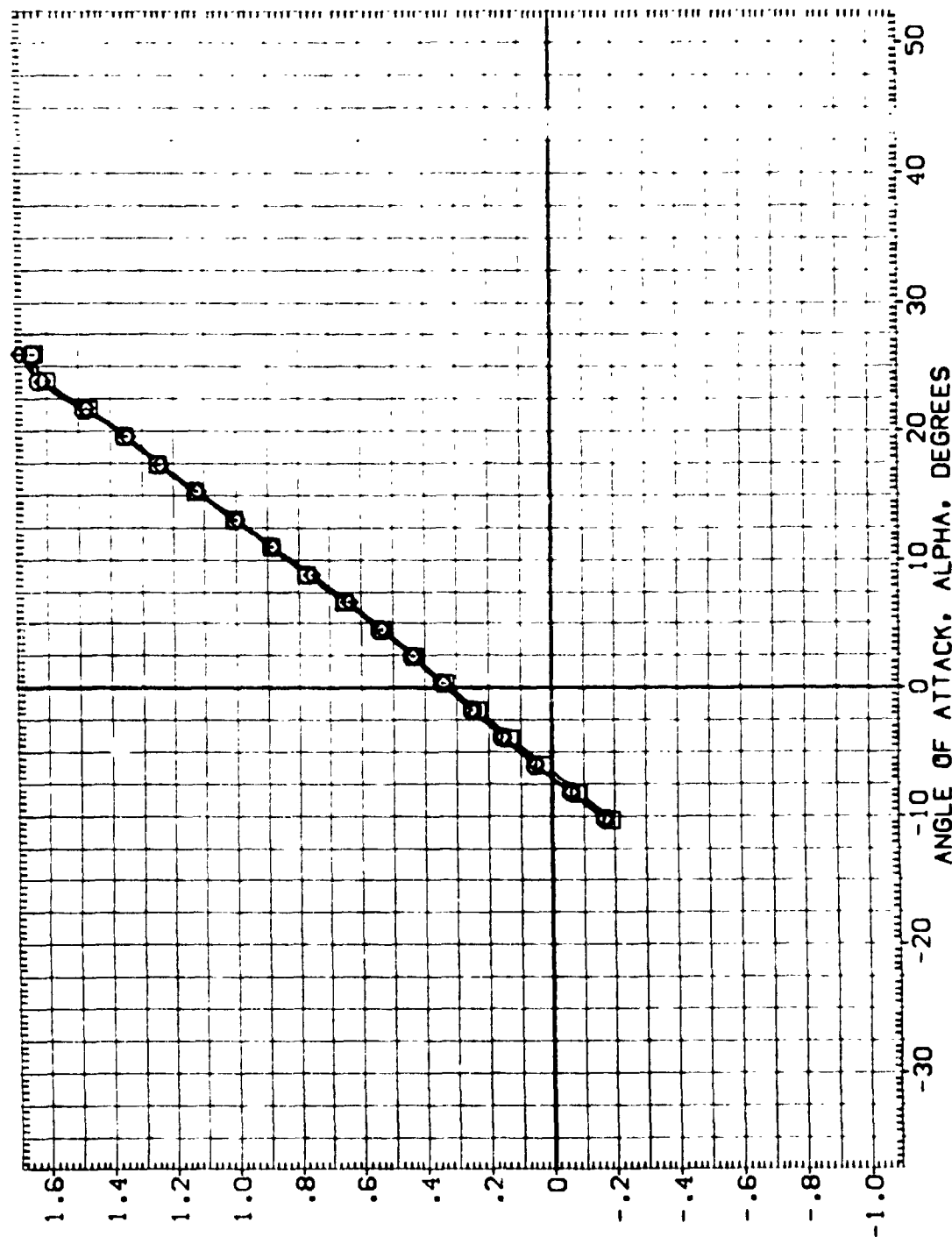


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 D-6
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	ATLRON	REFERENCE INFORMATION
{ AF8050 }	0A119A B61C11F12V51V124E46V19R15X29	20.000	.20	25.000	.000	SREF 2690.0100 50.FT.
{ AF8051 }	0A119A B61C11F12V51V124E47V19R15X29	20.000	.000	25.000	.000	LREF 474.8100 INCHES
{ AF8052 }	0A119A B61C11F12V51V124E48V19R15X29	20.000	.000	25.000	.000	BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405

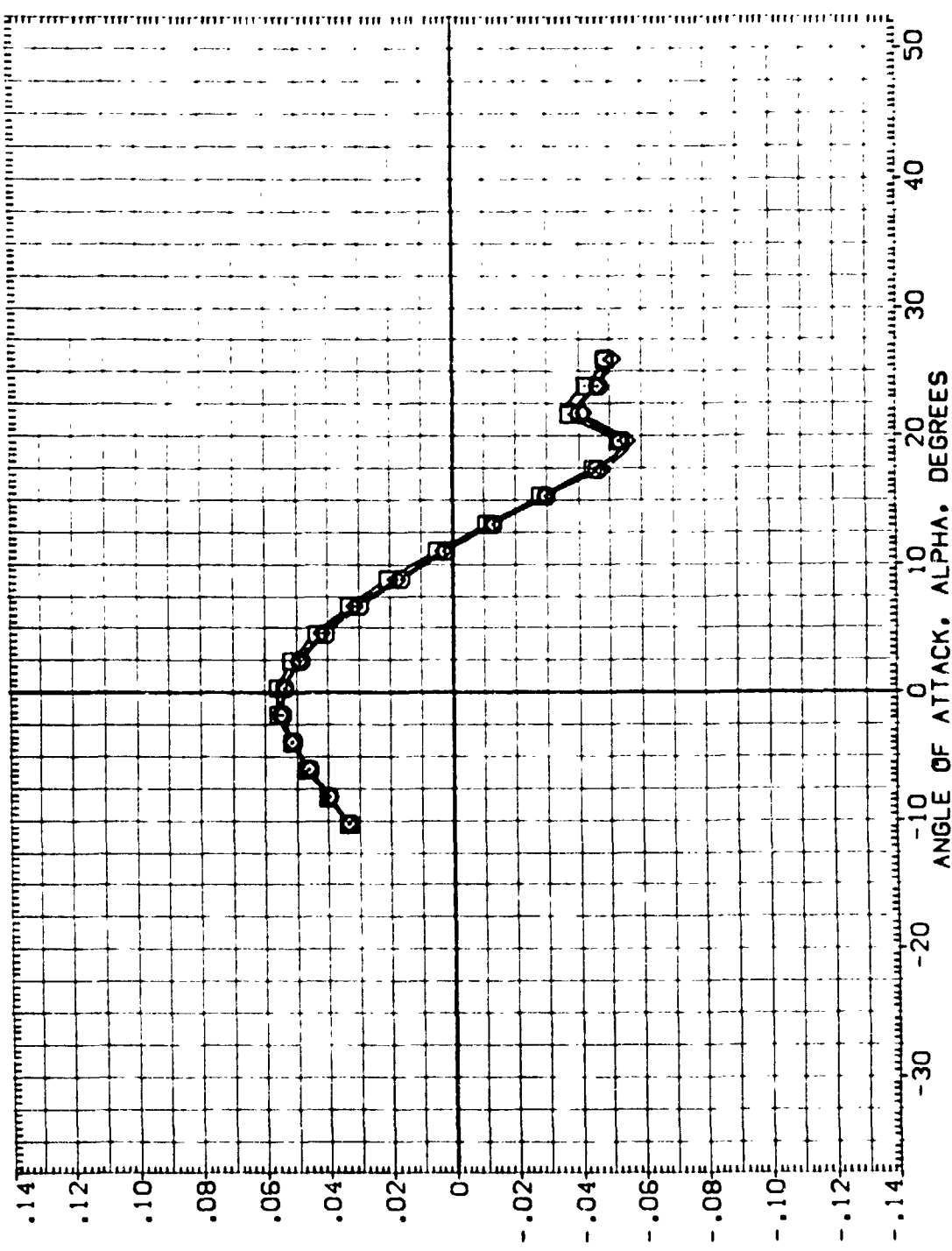


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

CA3MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION

AF8050	0A119A	BS1C1F12H51V124E46V18R15X29
AF8051	0A119A	BS1C1F12H51V124E47V18R15X29
AF8052	0A119A	BS1C1F12H51V124E48V18R15X29

ELEVON

20.000	0.000	SPDRK	AILRON
30.000	0.000	25.000	0.000
40.000	0.000	25.000	0.000
50.000	0.000	25.000	0.000

REFERENCE INFORMATION

SREF	2690.0100	90.FT
LREF	474.8100	INCHES
BREF	936.6800	INCHES
XMRP	1076.4800	INCHES
YMRP	0.0000	INCHES
ZMRP	375.0000	INCHES
SCALE	.0405	SCALE

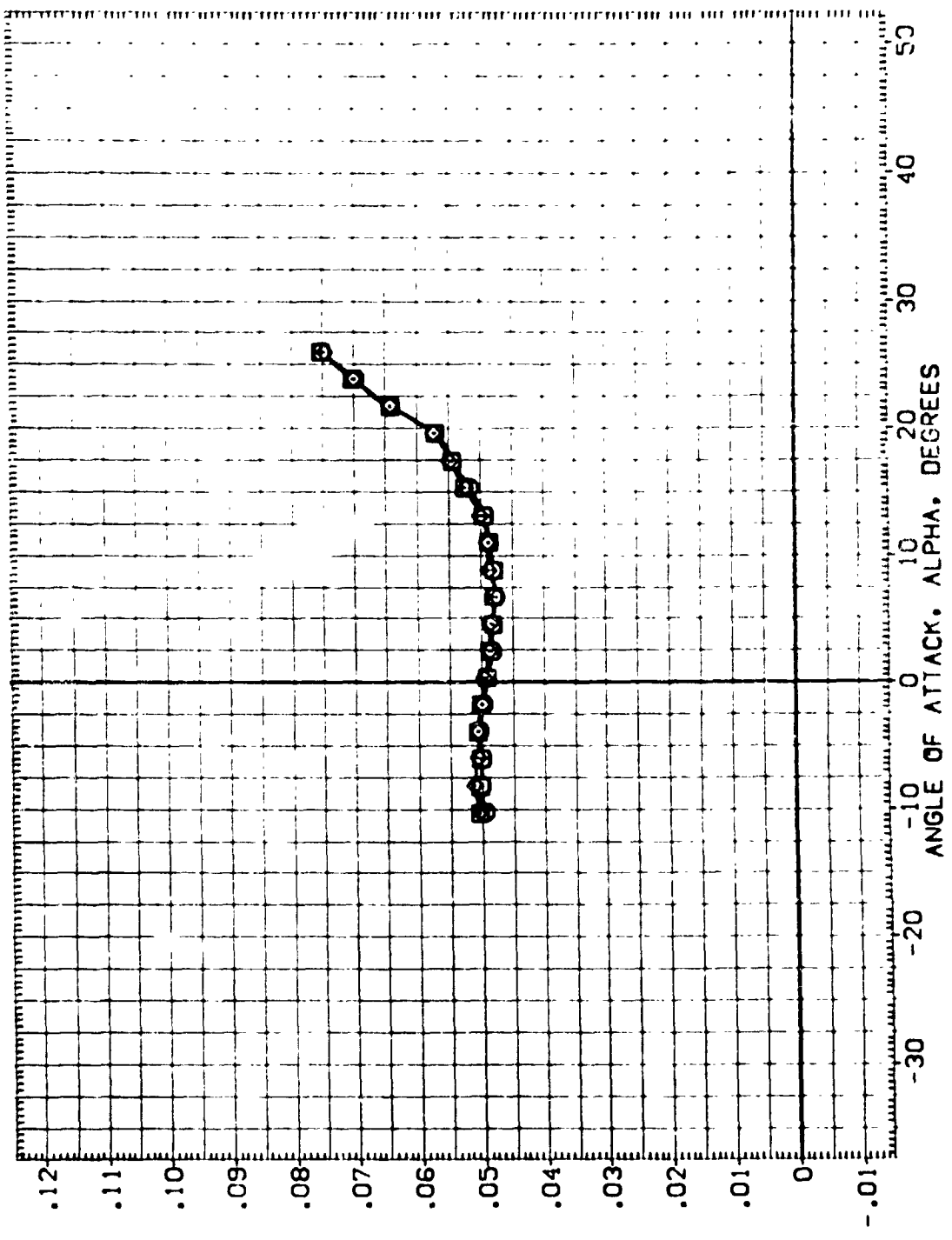


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26

ELEVATION	BOL LAP	SPOBARK	AIRLON	REFERENCE INFORMATION
20.000	.000	25.000	.000	GREF 2690.0100 50.FT.
20.000	.000	25.000	.000	LREF 474.8100 INCHES
20.000	.000	25.000	.000	BREF 936.6800 INCHES
20.000	.000	25.000	.000	XTRP 1076.1800 INCHES
				THRP .0000 INCHES
				ZMRP 375.0000 INCHES
				SCALE .0405 SCALE

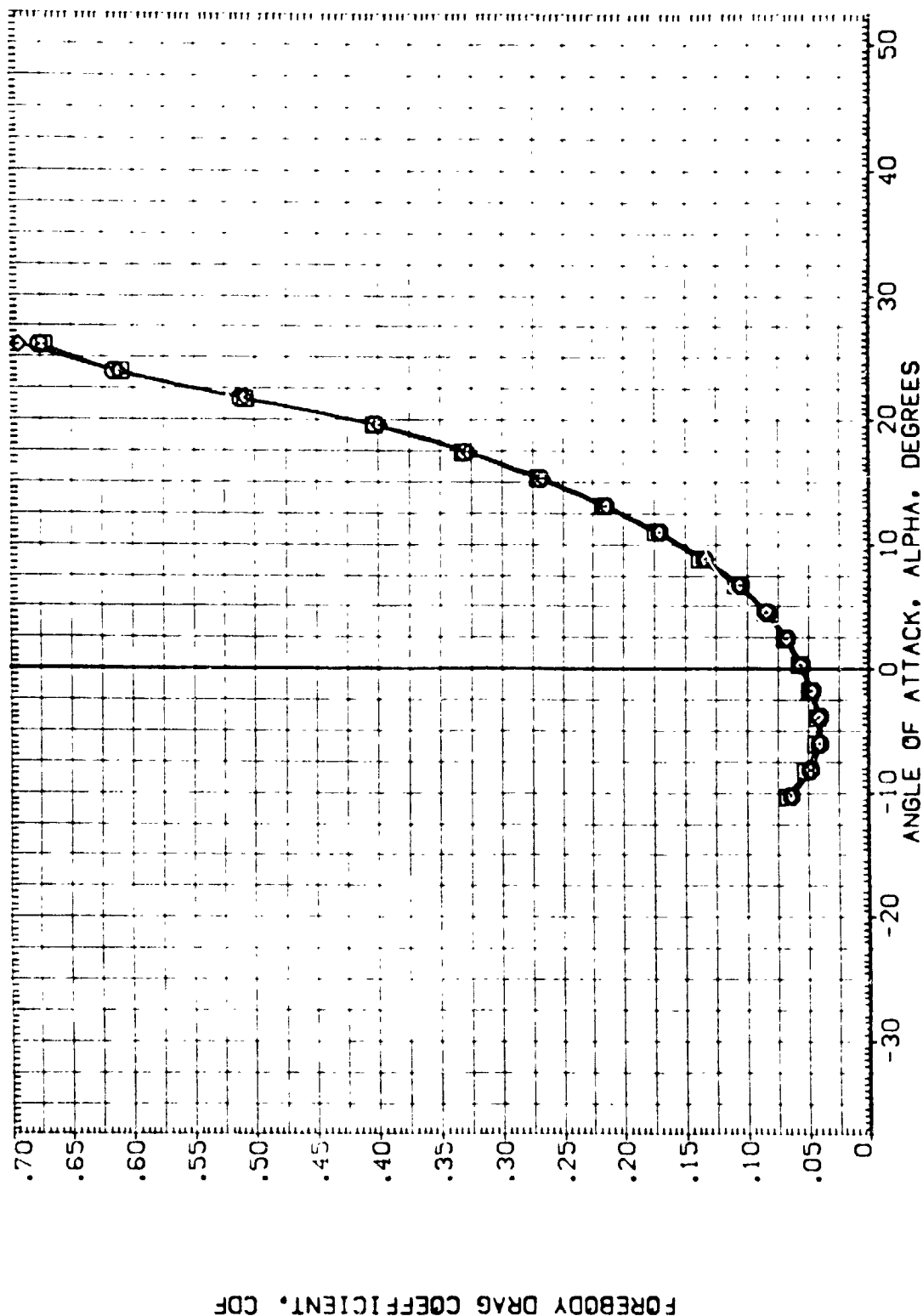


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

$$C_A)_{MACH} = .26$$

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	SPDRK	AILRON	REFERENCE INFORMATION
{AF8058}	0A119A BS1C1F12P31V124E45V19P15X23	20.000	.000	.000	SREF 2690.0100 50.FT
{AF8051}	0A119A BS1C1F12P31V124E47V19P15X23	20.000	.000	.000	LREF 474.8100 INCHES
{AF8052}	0A119A BS1C1F12P31V124E46V19P15X23	20.000	.000	.000	BREF 936.6800 INCHES
					XPRP 1076.4800 INCHES
					YPRP .0000 INCHES
					ZPRP .0000 INCHES
					SCALE 375.0000 INCHES

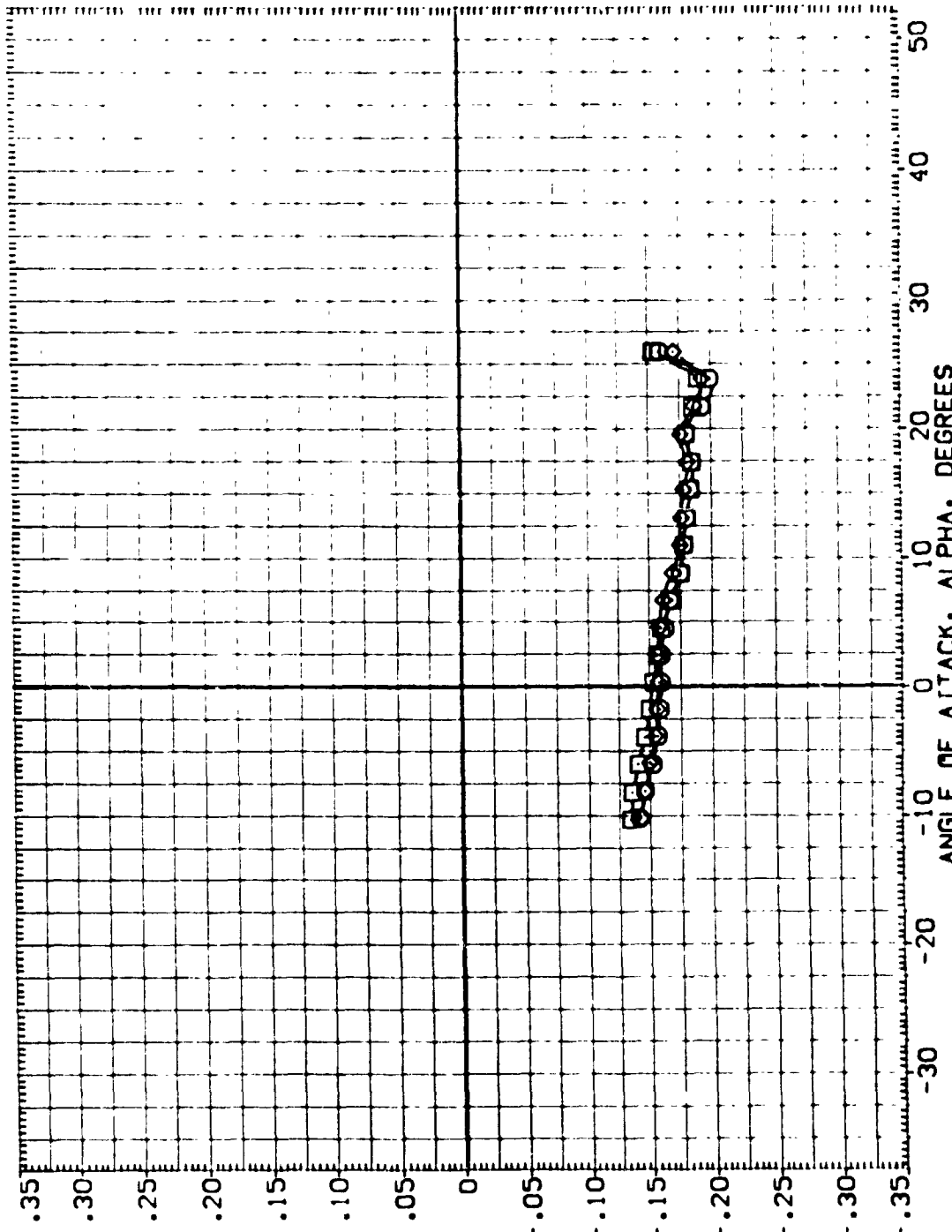


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	FLAP	SPOON	AIRLON	REFERENCE INFORMATION
(AF8059)	0A11SA BS1C1F12V51V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8051)	0A11SA BS1C1F12V51V124E47V19R15X29	20.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8052)	0A11SA BS1C1F12V51V124E46V19R15X29	20.000	.000	25.000	.000	BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0405

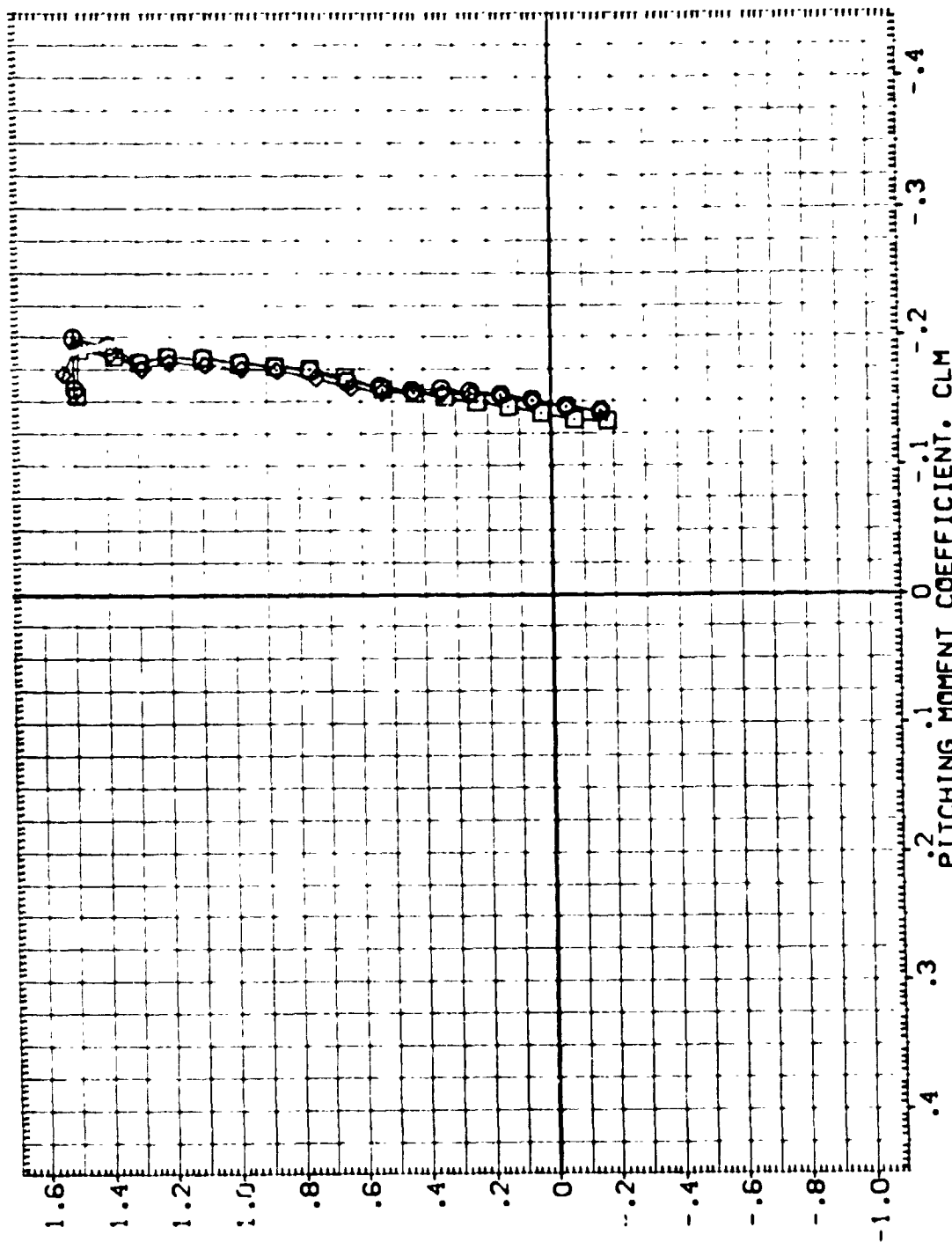


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	ALRON	REFERENCE INFORMATION
(AF8059)	0A11SA 061C11F12W51V124E46V19R15X29	20.000	.000	25.000	.000	SREF 2650.0100 SQ.FT.
(AF8051)	0A11SA 061C11F12W51V124E47V19R15X29	20.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8052)	0A11SA 061C11F12W51V124E48V19R15X29	20.000	.000	25.000	.000	BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0405 INCHES

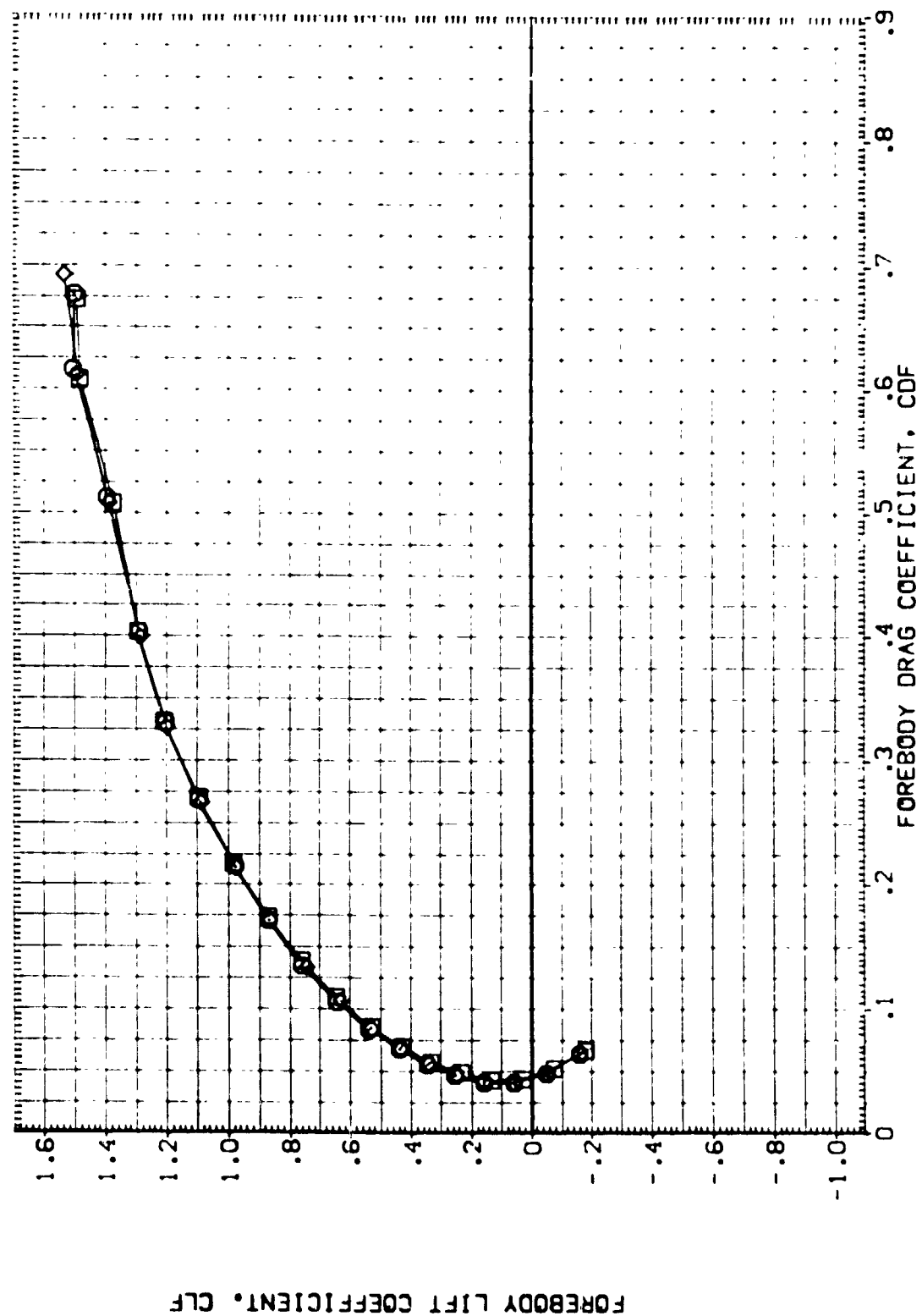


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26

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ELEVATION	BOT LAP	SPT BRK	AIR LON	REFERENCE INFORMATION
20.000	.000	20.000	.000	GREF 2690.0100 SQ. FT.
20.000	.000	20.000	.000	LREF 174.8100 INCHES
20.000	.000	20.000	.000	BREF 936.8800 INCHES
20.000	.000	20.000	.000	XTRP 1076.4800 INCHES
				YTRP .0000 INCHES
				ZTRP 375.0000 INCHES
				SCALE .0405 SCALE

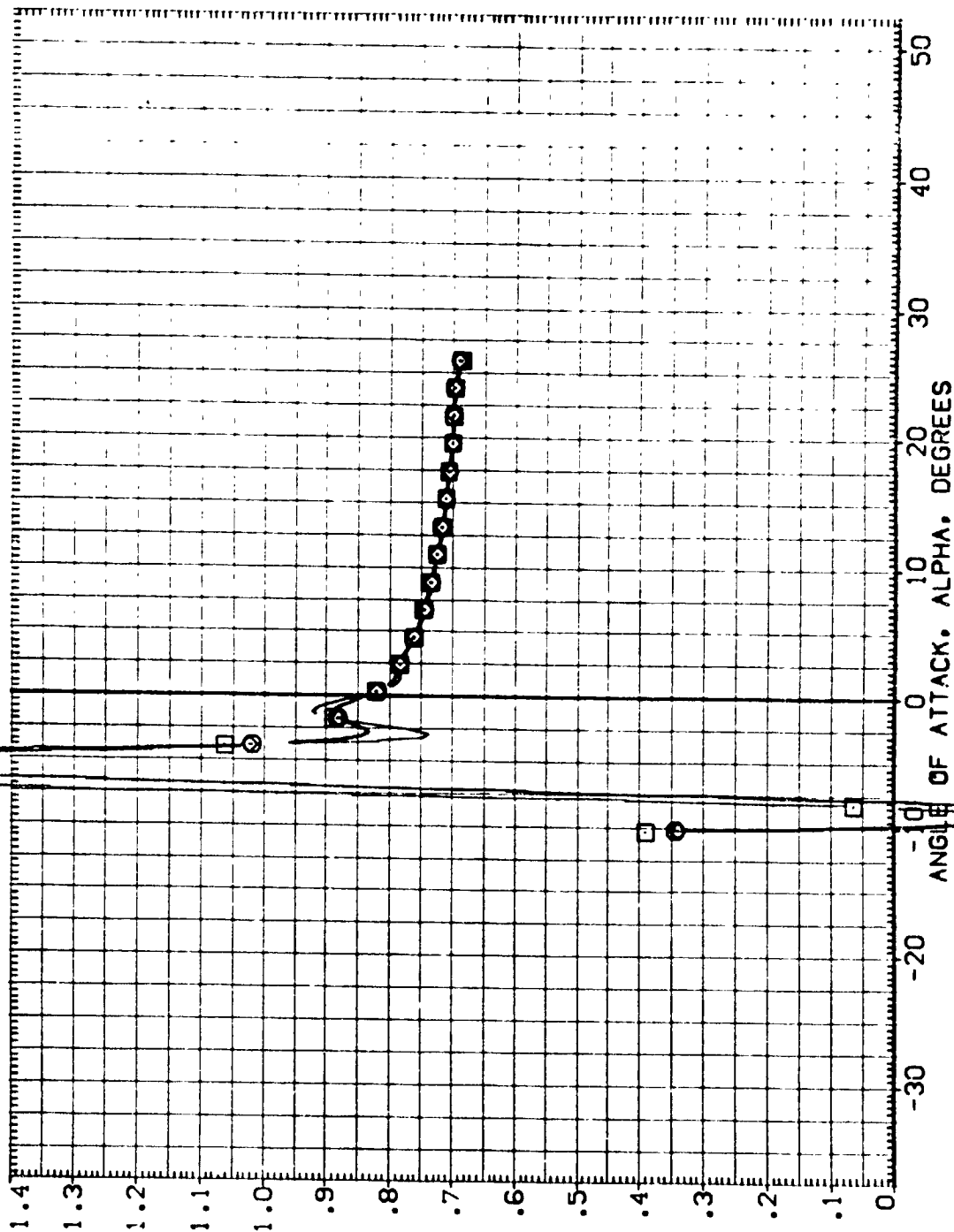


FIG 14 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

CAMACH = .28

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOE LAP	SPORERK	AIRLON	REFERENCE INFORMATION	SCALE
(AF8030)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	SREF 269C 3100	SO. FT.
(AF8031)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	LREF 474 3100	INCHES
(AF8032)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	BR 93 3100	INCHES
(AF8033)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES
(AF8034)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES
(AF8035)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES
(AF8036)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES
(AF8037)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES
(AF8038)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES
(AF8039)	GA119A BS111F124545V1SR15X29	-10.000	.000	25.000	.000	YREF 1076 3100	INCHES

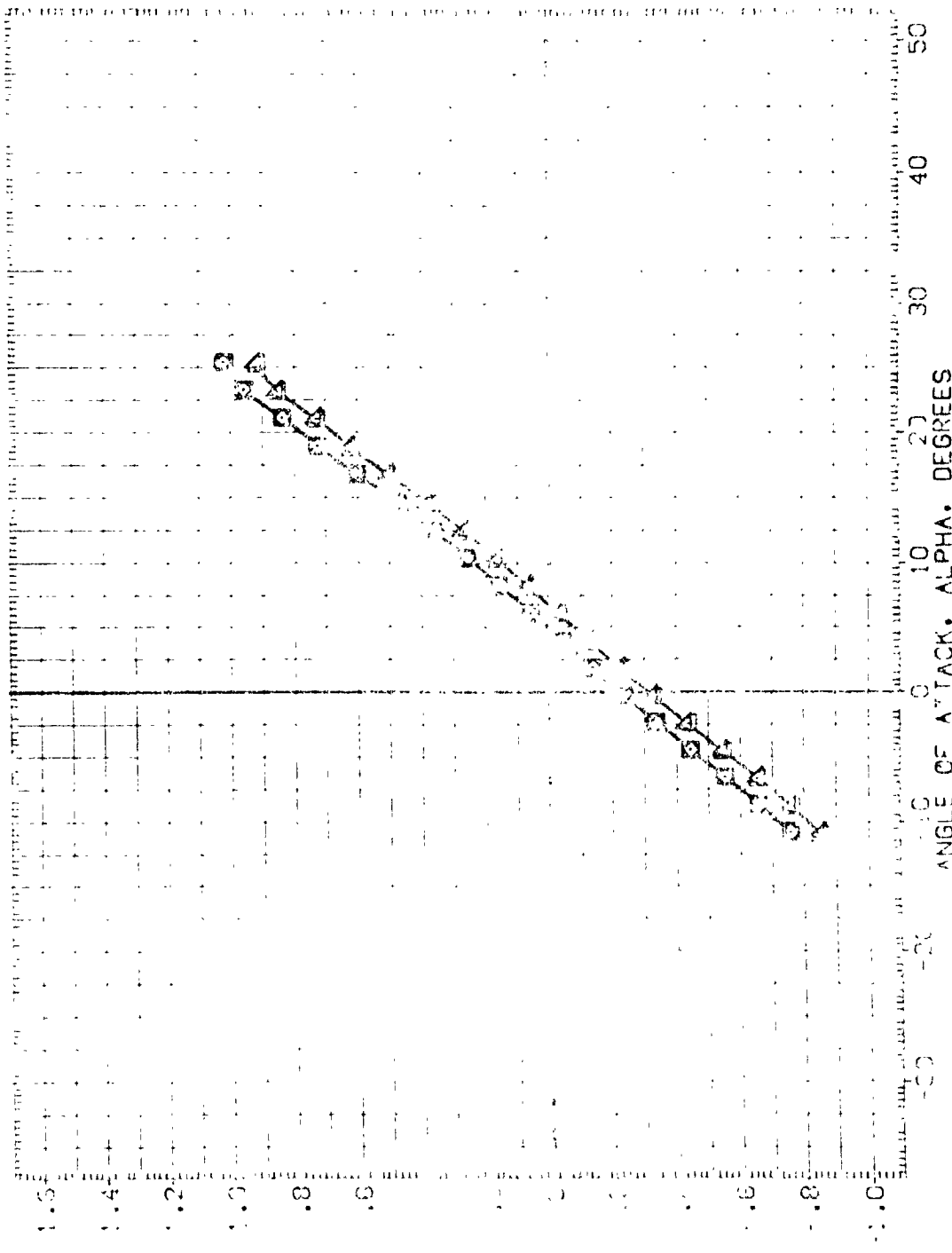


FIG. 15. EFFECT OF FLAP OVERLAP ON ELEVON EFFECTIVENESS, ELEVON = -10 AND -15 DEG
 CLMACH = .26
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AILERON	REFERENCE INFORMATION
(AF8020)	0A119A B61C11F12V51V124E46V1SR15X29	-10.000	.000	25.000	.000	SREF 2690 0100 90.FT.
(AF8026)	0A119A B61C11F12V51V124E47V1SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8027)	0A119A B61C11F12V51V124E48V1SR15X29	-10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8028)	0A119A B61C11F12V51V124E46V1SR15X29	-15.000	.000	25.000	.000	XPRP 1076.4800 INCHES
(AF8018)	0A119A B61C11F12V51V124E47V1SR15X29	-15.000	.000	25.000	.000	YPRP 375.0000 INCHES
(AF8019)	0A119A B61C11F12V51V124E48V1SR15X29	-15.000	.000	25.000	.000	ZPRP 375.0000 INCHES
						SCALE .0405

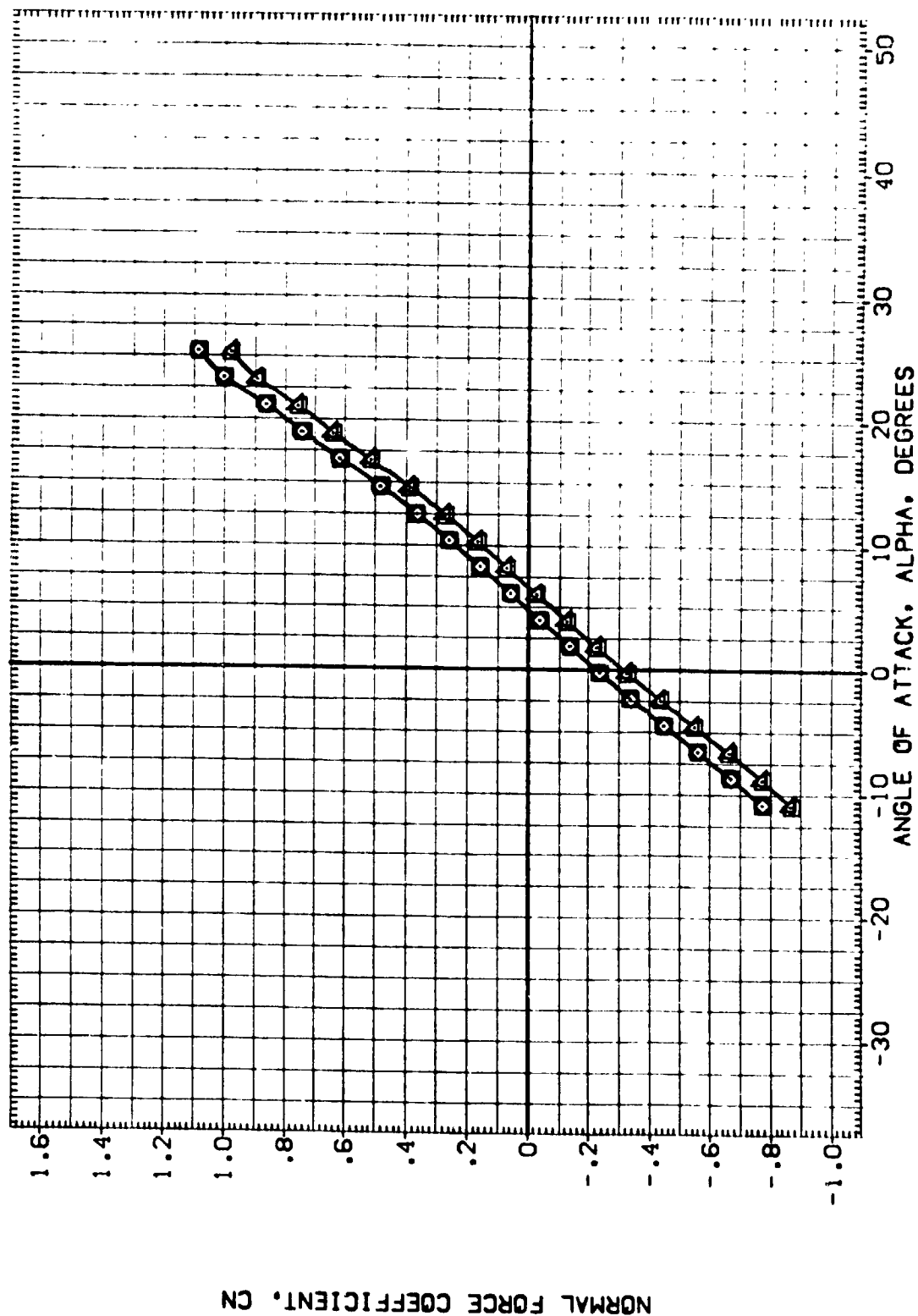


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-10 AND-15 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDCLAP	SPOBRK	ALLRON	REFERENCE INFORMATION
(AF8030)	DA119A B61C1F124E46V19R15X29	-10.000	.000	25.000	.000	SREF 2690.0100 50.000
(AF8031)	DA119A B61C1F124E47V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 100.000
(AF8032)	DA119A B61C1F124E48V19R15X29	-10.000	.000	25.000	.000	BREF 936.5800 100.000
(AF8033)	DA119A B61C1F124E49V19R15X29	-10.000	.000	25.000	.000	XREF 1076.4800 100.000
(AF8034)	DA119A B61C1F124E50V19R15X29	-10.000	.000	25.000	.000	YREF 375.0000 100.000
(AF8035)	DA119A B61C1F124E51V19R15X29	-10.000	.000	25.000	.000	ZREF 375.0000 100.000
(AF8036)	DA119A B61C1F124E52V19R15X29	-10.000	.000	25.000	.000	SCALE .2405

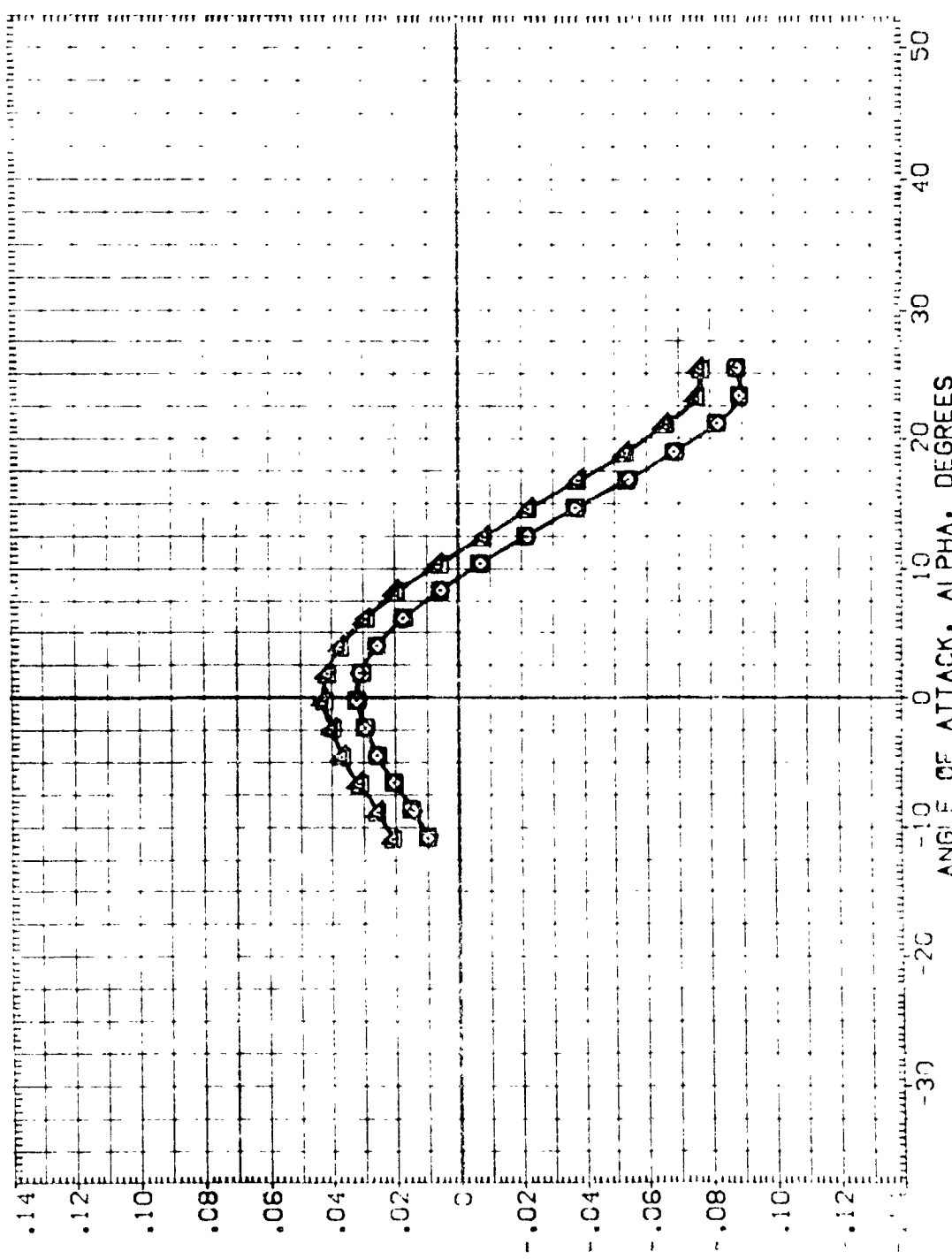


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -10 AND -15 DEG
 (A)MACH = .26 PAGE 113

DATA SET	SPRDL	CONFIGURATION DESCRIPTION	ELEVON	REFLAP	SPDRK	ALFON	REFERENCE INFORMATION
{AF8000}	0	0A11SA 061C1F12451V124E46V1SR15X29	-10.000	.000	25.000	.000	WREF 2000.0100 50.FT
{AF8006}	0	0A11SA 061C1F12451V124E47V1SR15X29	-10.000	.000	25.000	.000	LREF 174.8100 INCHES
{AF8007}	0	0A11SA 061C1F12451V124E46V1SR15X29	-10.000	.000	25.000	.000	BREF 538.6500 INCHES
{AF8020}	0	0A11SA 061C1F12451V124E46V1SR15X29	-15.000	.000	25.000	.000	YMRP 1076.4800 INCHES
{AF8018}	0	0A11SA 061C1F12451V124E47V1SR15X29	-15.000	.000	25.000	.000	ZMRP 375.0000 INCHES
{AF8019}	0	0A11SA 061C1F12451V124E46V1SR15X29	-15.000	.000	25.000	.000	SCALE .0405

BASE AXIAL FORCE COEFFICIENT, CAB

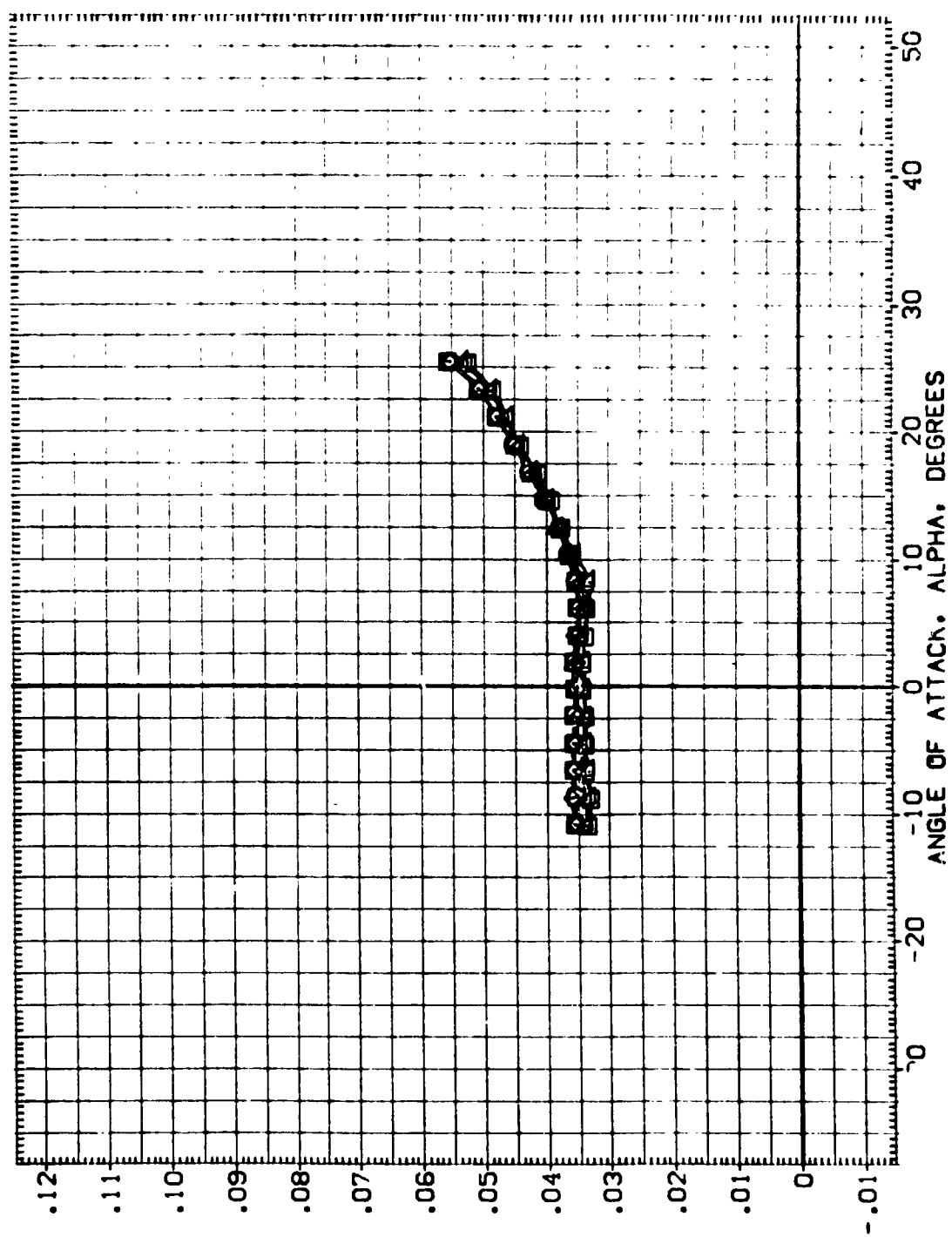


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-10 AND-15 DEG
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AILRON	REFERENCE INFORMATION
(AF8030)	0A119A B61C11F12M51V124E46V19R15X29	-10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8026)	0A119A B61C11F12M51V124E47V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8027)	0A119A B61C11F12M51V124E48V19R15X29	-10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8020)	0A119A B61C11F12M51V124E46V19R15X29	-15.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8018)	0A119A B61C11F12M51V124E47V19R15X29	-15.000	.000	25.000	.000	YMRP .0000 INCHES
(AF8019)	0A119A B61C11F12M51V124E48V19R15X29	-15.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

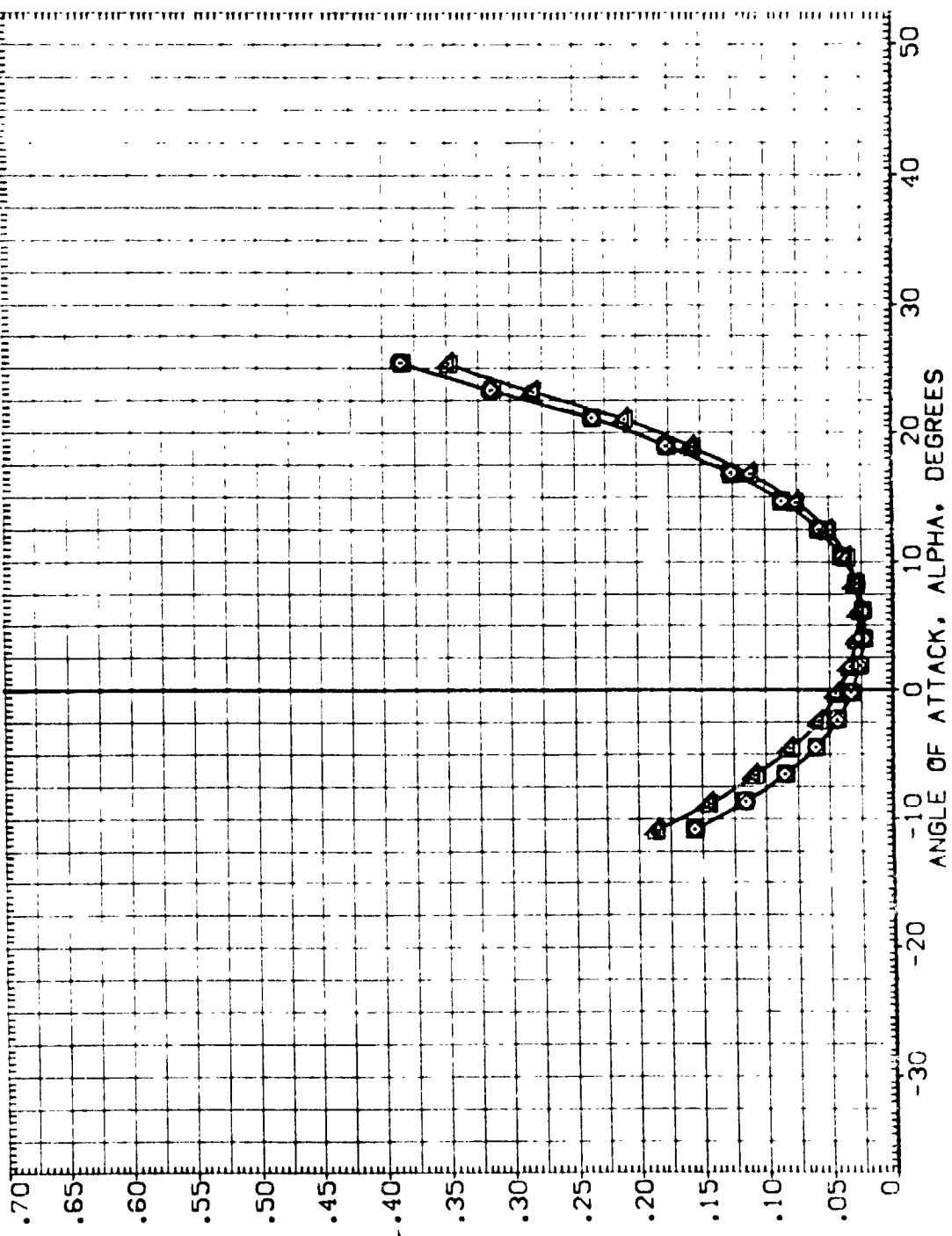


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-10 AND-15 DEG

(A)MACH = .26 PAGE 15

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ORIGINAL PAGE IS POOR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	ALIGN	REFERENCE INFORMATION
{AF8000}	DA119A BS1C1F12P51V124E46V1SR15X29	-10.000	.000	23.000	.000	SREF 2680.0100 90.01
{AF80026}	DA119A BS1C1F12P51V124E47V1SR15X29	-10.000	.000	23.000	.000	LREF 474.8100 INCHES
{AF80027}	DA119A BS1C1F12P51V124E48V1SR15X29	-10.000	.000	23.000	.000	BREF 936.5800 INCHES
{AF80020}	DA119A BS1C1F12P51V124E45V1SR15X29	-13.000	.000	23.000	.000	YMRP 1076.4800 INCHES
{AF80018}	DA119A BS1C1F12P51V124E47V1SR15X29	-13.000	.000	23.000	.000	ZMRP .0000 INCHES
{AF80019}	DA119A BS1C1F12P51V124E48V1SR15X29	-13.000	.000	23.000	.000	SCALE .0405 INCHES

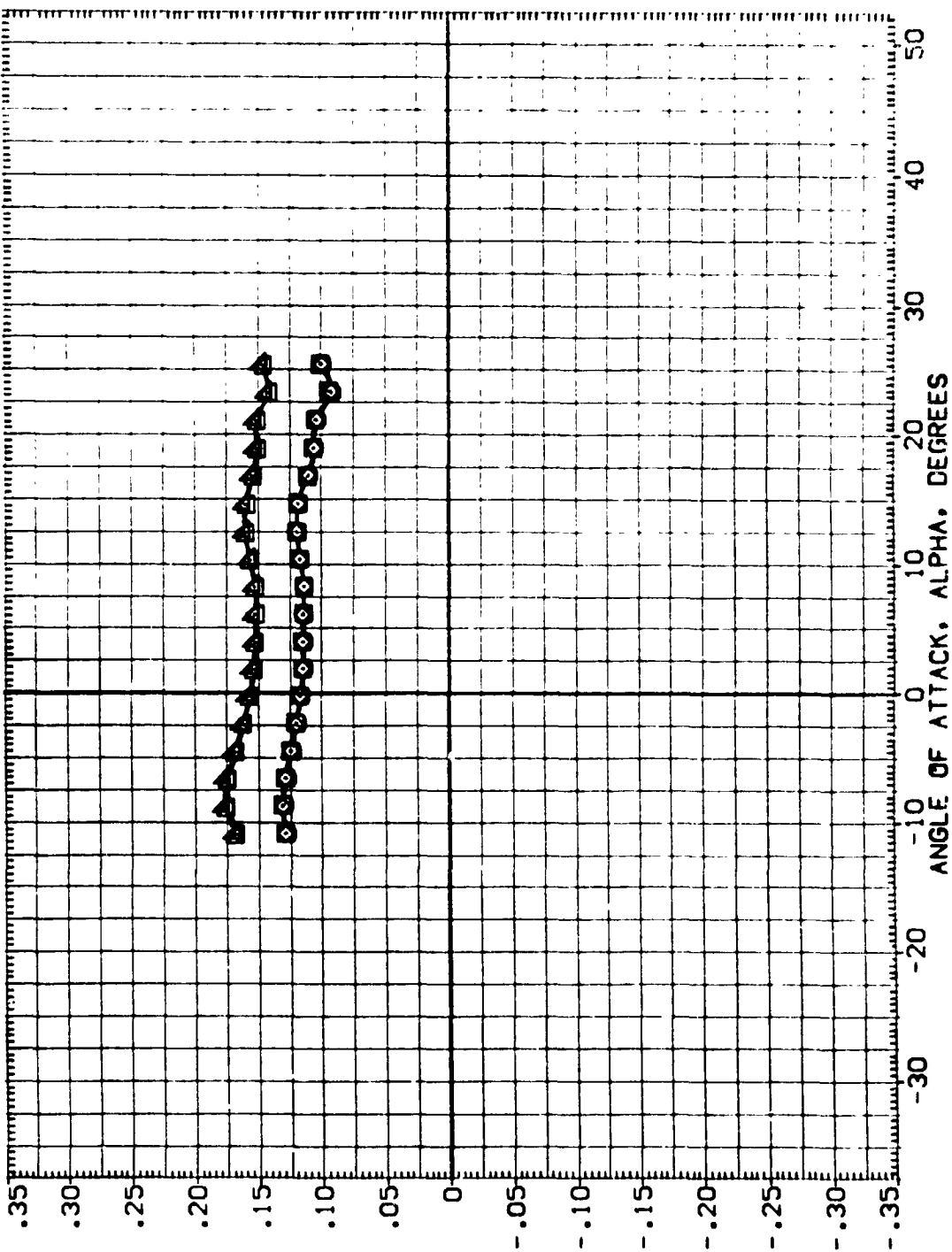


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-10 AND-15 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8030)	0A119A 861C1F12H51V124E46V19R15X29	-10.000	.000	25.000	.000	SREF 2630.0100 SQ.FT.
(AF8026)	0A119A 861C1F12H51V124E47V19R15X29	-10.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8027)	0A119A 861C1F12H51V124E48V19R15X29	-10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8020)	0A119A 861C1F12H51V124E46V19R15X29	-15.000	.000	25.000	.000	XRRP 10716.4800 INCHES
(AF8018)	0A119A 861C1F12H51V124E47V19R15X29	-15.000	.000	25.000	.000	YRRP .0000 INCHES
(AF8019)	0A119A 861C1F12H51V124E48V19R15X29	-15.000	.000	25.000	.000	ZRRP 375.0000 INCHES
						SCALE .0105

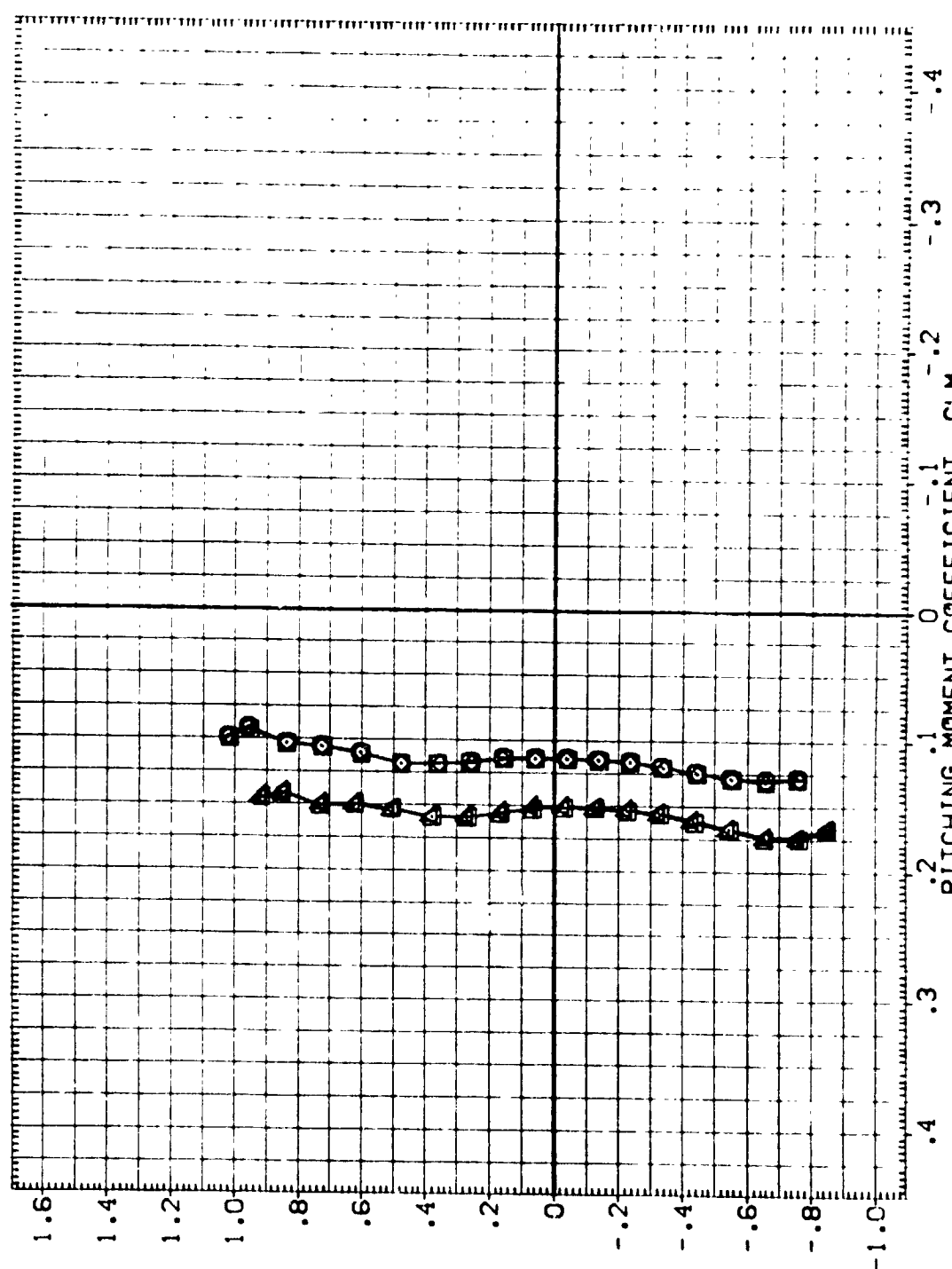


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-10 AND-15 DEG
 (A)MACH = .26

DATA SET SYMBO	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRBON	REFERENCE INFORMATION
(AF8030)	0A119A 061C1F 2V51V124E48V1SR15X29	-10.000	.000	25.000	.000	SREF 2690.0100 SC FT
(AF8026)	0A119A 061C1F 2V51V124E47V1SR15X29	-10.000	.000	25.000	.000	LREF 474.8100 INO-ES
(AF8027)	0A119A 061C1F 2V51V124E48V1SR15X29	-10.000	.000	25.000	.000	BREF 935.8800 INO-ES
(AF8020)	0A119A 061C1F 2V51V124E46V1SR15X29	-15.000	.000	25.000	.000	XREF 1075.4800 INO-ES
(AF8018)	0A119A 061C1F 2V51V124E47V1SR15X29	-15.000	.000	25.000	.000	YREF 375.0000 INO-ES
(AF8019)	0A119A 061C1F 2V51V124E48V1SR15X29	-15.000	.000	25.000	.000	ZREF 375.0000 INO-ES
						SCALE .0405

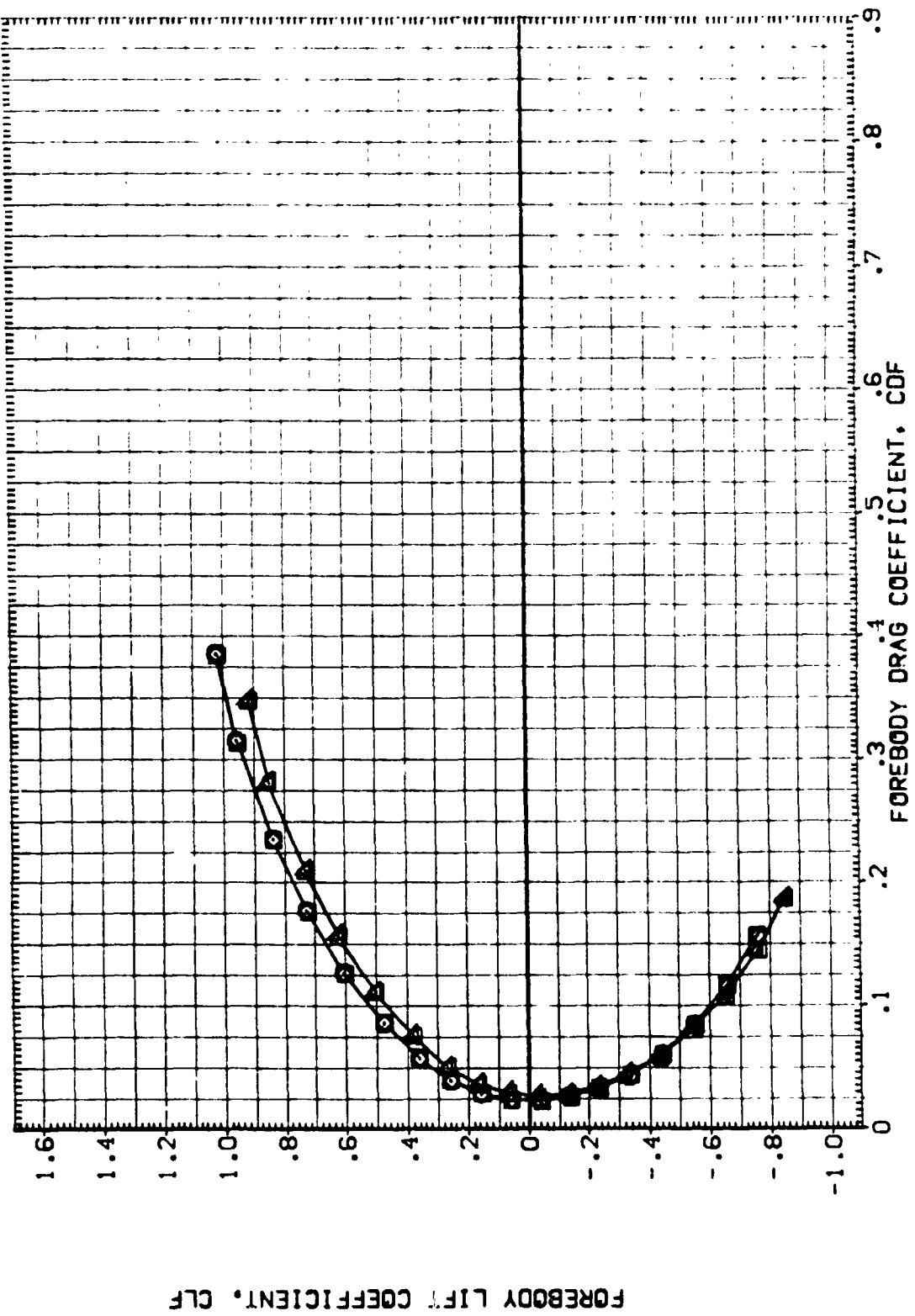


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -10 AND -15 DEG
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVATION	WING FLAP	WING DROOP	AILERON	REFERENCE INFORMATION
[AF8030]	0A1119A BS1C1IF12V51V124E46V1SR15X29	10.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8026]	0A1119A BS1C1IF12V51V124E47V1SR15X29	10.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8027]	0A1119A BS1C1IF12V51V124E46V1SR15X29	10.000	.000	25.000	.000	BREF 836.6800 INCHES
[AF8020]	0A1119A BS1C1IF12V51V124E46V1SR15X29	15.000	.000	25.000	.000	XPROP 1076.1800 INCHES
[AF8018]	0A1119A BS1C1IF12V51V124E47V1SR15X29	15.000	.000	25.000	.000	YPROP 375.0000 INCHES
[AF8019]	0A1119A BS1C1IF12V51V124E46V1SR15X29	15.000	.000	25.000	.000	ZPROP 375.0000 INCHES
						SCALE .0405

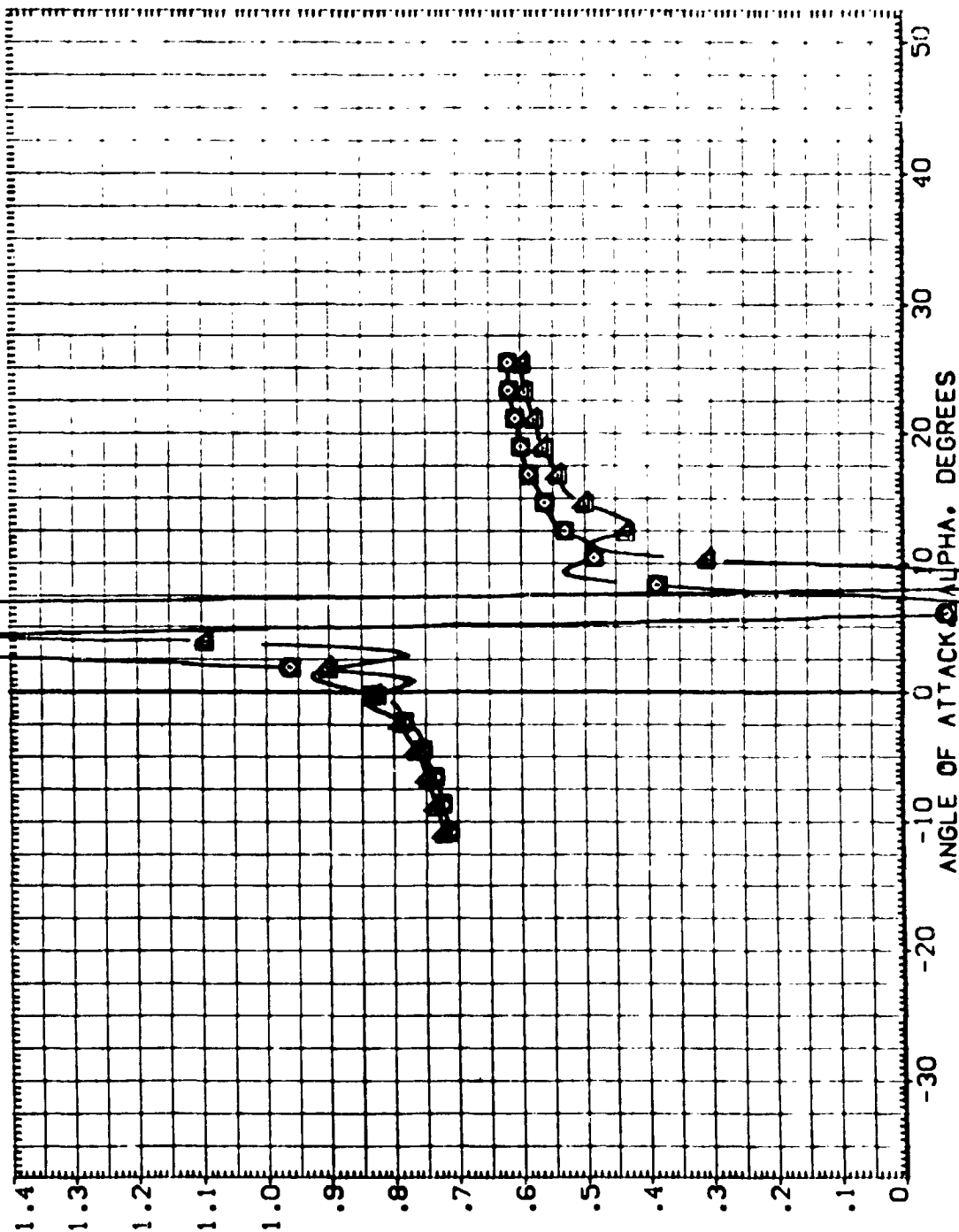


FIG 15 EFFECT OF FLAPPER DOOR ON ELEVATOR EFFECTIVENESS, ELEVON -10 AND -15 DEG
(A)MACH = .26



TA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BO-LAP	SPEEDY	ALIGN	REFERENCE INFORMATION
(AF8013)	DA119A B61C1F12751V124E16V19R15X29	-20.000	.000	25.000	.000	2690.0100 SQ.FT.
(AF8017)	DA119A B61C1F12751V124E17V19R15X29	-20.000	.000	25.000	.000	474.8100 INCHES
(AF8016)	DA119A B61C1F12751V124E18V19R15X29	-20.000	.000	25.000	.000	936.6800 INCHES
(AF8010)	DA119A B61C1F12751V124E16V19R15X29	-30.000	.000	25.000	.000	1076.1800 INCHES
(AF8011)	DA119A B61C1F12751V124E17V19R15X29	-30.000	.000	25.000	.000	375.0000 INCHES
(AF8012)	DA119A B61C1F12751V124E18V19R15X29	-30.000	.000	25.000	.000	SCALE

FOREBODY LIFT COEFFICIENT, CLF

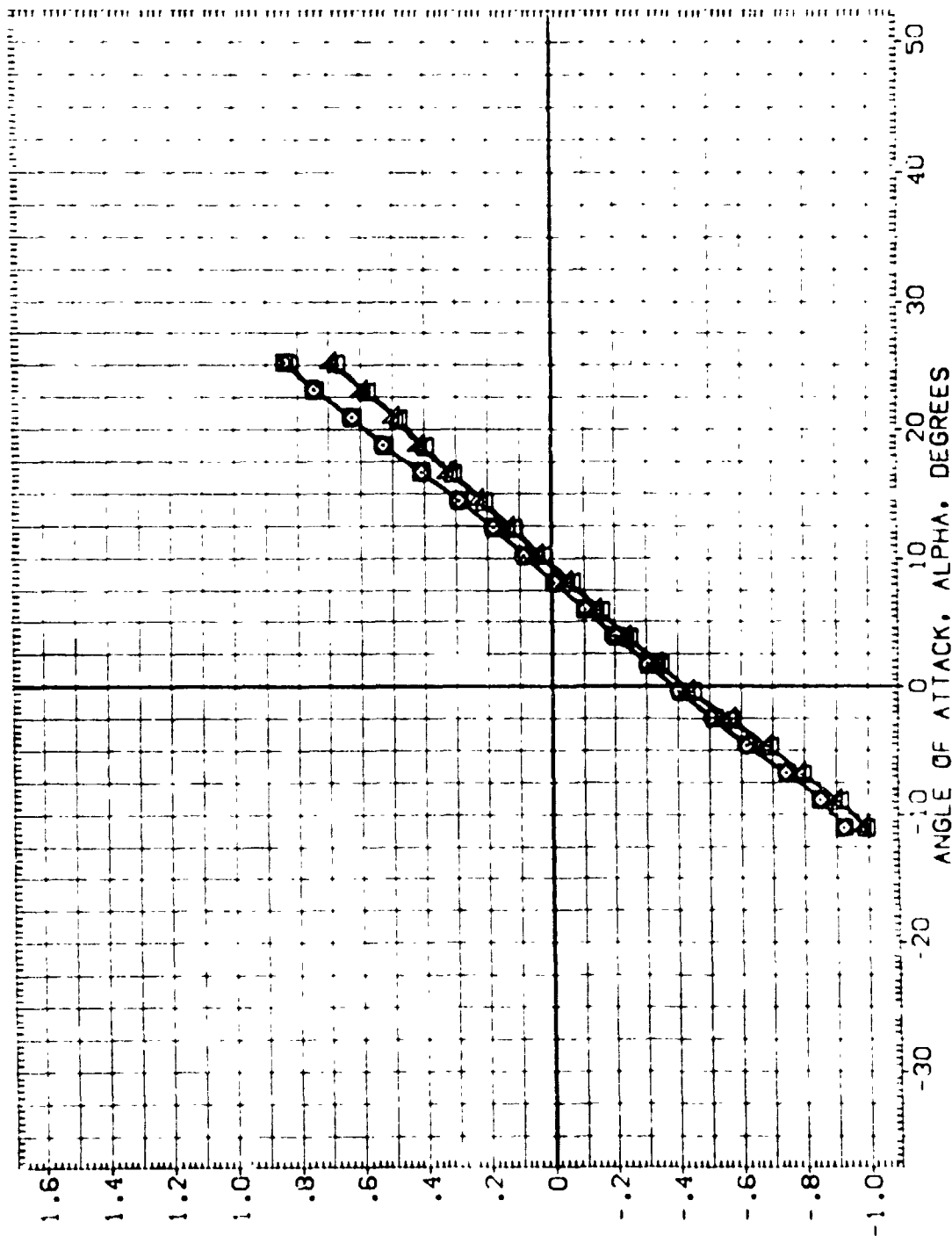
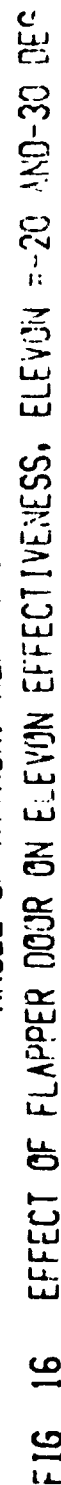


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-20 AND-30 DEG

(A)MACH = .26

CASE 122
$$C_{A3}MACH = .26$$

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	A/LRON	REFERENCE INFORMATION
(AF8013)	0A119A B6C11F 2V5V124E46V1SR15X29	-20.000	.000	25.000	.000	SREF 2630.0100 SQ.FT.
(AF8017)	0A119A B6C11F 2V5V124E47V1SR15X29	-20.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8016)	0A119A B6C11F 2V5V124E48V1SR15X29	-20.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8010)	0A119A B6C11F 2V5V124E46V1SR15X29	-30.000	.000	25.000	.000	XREF 1076.4800 INCHES
(AF8011)	0A119A B6C11F 2V5V124E47V1SR15X29	-30.000	.000	25.000	.000	YREF 375.0000 INCHES
(AF8012)	0A119A B6C11F 2V5V124E48V1SR15X29	-30.000	.000	25.000	.000	ZREF 375.0000 INCHES
						SCALE .0405

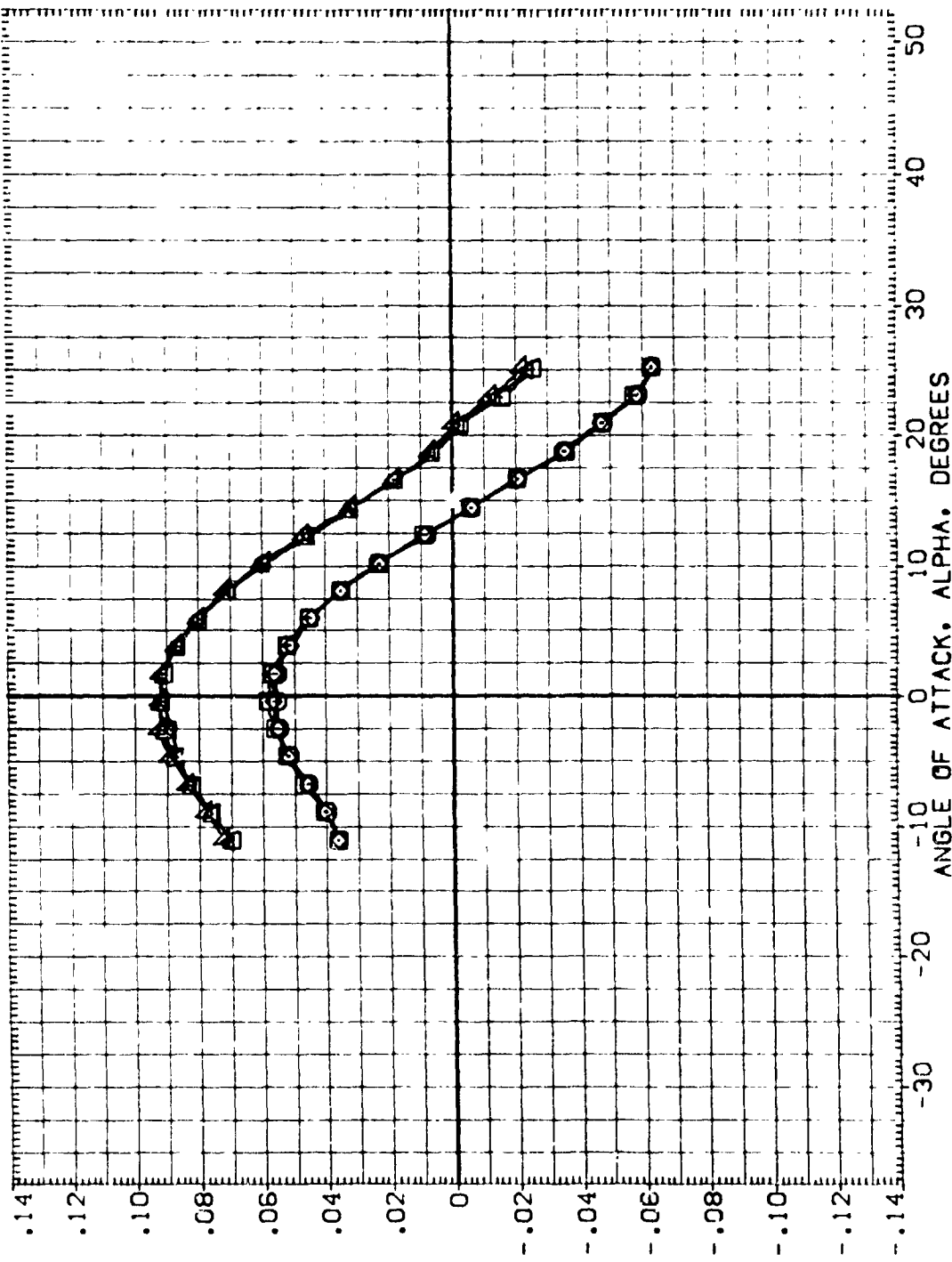


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -20 AND -30 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD FLAP	SPD BRK	AILDRON	REFERENCE INFORMATION
(AF8013)	0A1119A BS1C11F12451V124E46V1SR15X29	-20.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8017)	0A1119A BS1C11F12451V124E47V1SR15X29	-20.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8018)	0A1119A BS1C11F12451V124E48V1SR15X29	-20.000	.000	25.000	.000	BREF 936.6900 INCHES
(AF8019)	0A1119A BS1C11F12451V124E49V1SR15X29	-20.000	.000	25.000	.000	XREF 1076.4800 INCHES
(AF8011)	0A1119A BS1C11F12451V124E47V1SR15X29	-30.000	.000	25.000	.000	YREF .0000 INCHES
(AF8012)	0A1119A BS1C11F12451V124E48V1SR15X29	-30.000	.000	25.000	.000	ZREF .0405 INCHES
						SCALE

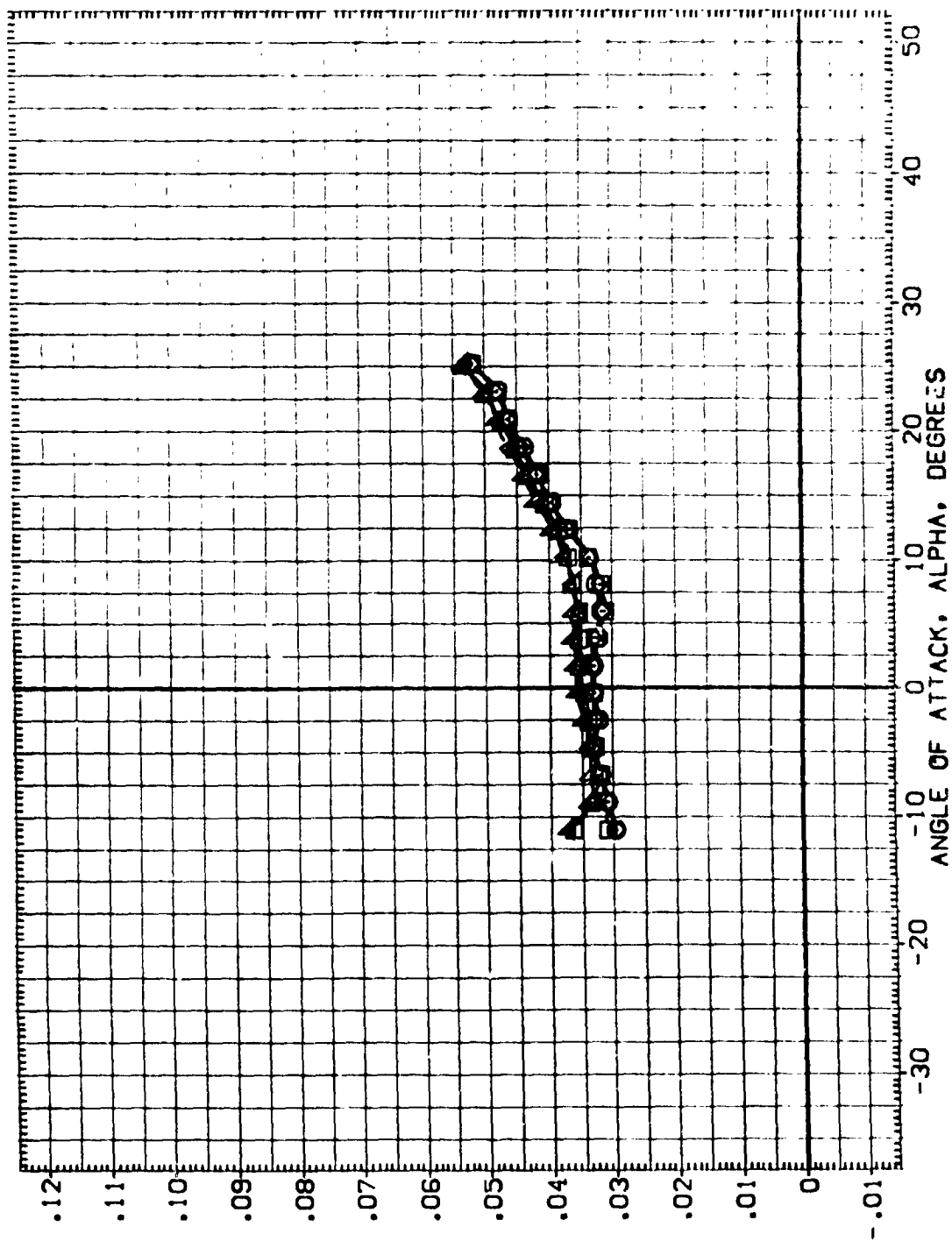


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = 20 AND 30 DEG

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILERON	REFERENCE INFORMATION
{ AF8013 }	0A119A B61C1F12M5V124E46V1SR15X29	-20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT
{ AF8017 }	0A119A B61C1F12M5V124E47V1SR15X29	-20.000	.000	25.000	.000	LREF 474.8100 INCHES
{ AF8016 }	0A119A B61C1F12M5V124E48V1SR15X29	-20.000	.000	25.000	.000	BREF 936.6800 INCHES
{ AF8010 }	0A119A B61C1F12M5V124E46V1SR15X29	-30.000	.000	25.000	.000	XMRP 1076.4800 INCHES
{ AF8011 }	0A119A B61C1F12M5V124E47V1SR15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
{ AF8012 }	0A119A B61C1F12M5V124E48V1SR15X29	-30.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405 SCALE

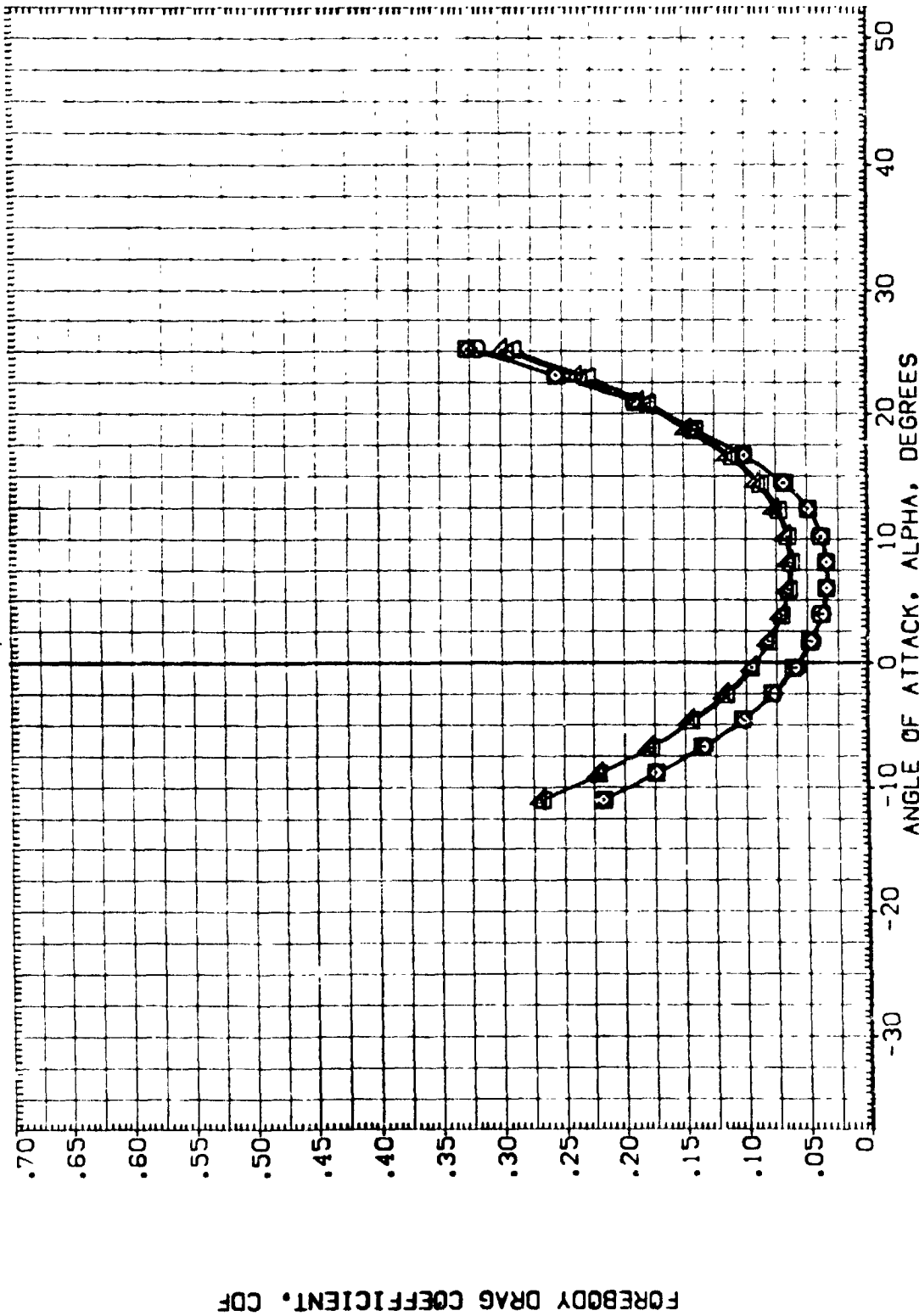


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -20 AND -30 DEG
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOROK	AIRLON	REFERENCE INFORMATION	SO. FT.
{AF8013}	0A119A B61C1F12451V124E46V1SR15X29	-20.000	.000	25.000	.000	SREF	2680.0100
{AF8017}	0A119A B61C1F12451V124E47V1SR15X29	-20.000	.000	25.000	.000	LREF	474.8100
{AF8018}	0A119A B61C1F12451V124E48V1SR15X29	-20.000	.000	25.000	.000	SREF	936.6800
{AF8010}	0A119A B61C1F12451V124E46V1SR15X29	-30.000	.000	25.000	.000	XMRP	1076.4800
{AF8011}	0A119A B61C1F12451V124E47V1SR15X29	-30.000	.000	25.000	.000	YMRP	.0000
{AF8012}	0A119A B61C1F12451V124E48V1SR15X29	-30.000	.000	25.000	.000	ZMRP	375.0000
						SCALE	.0405
						SCALE	

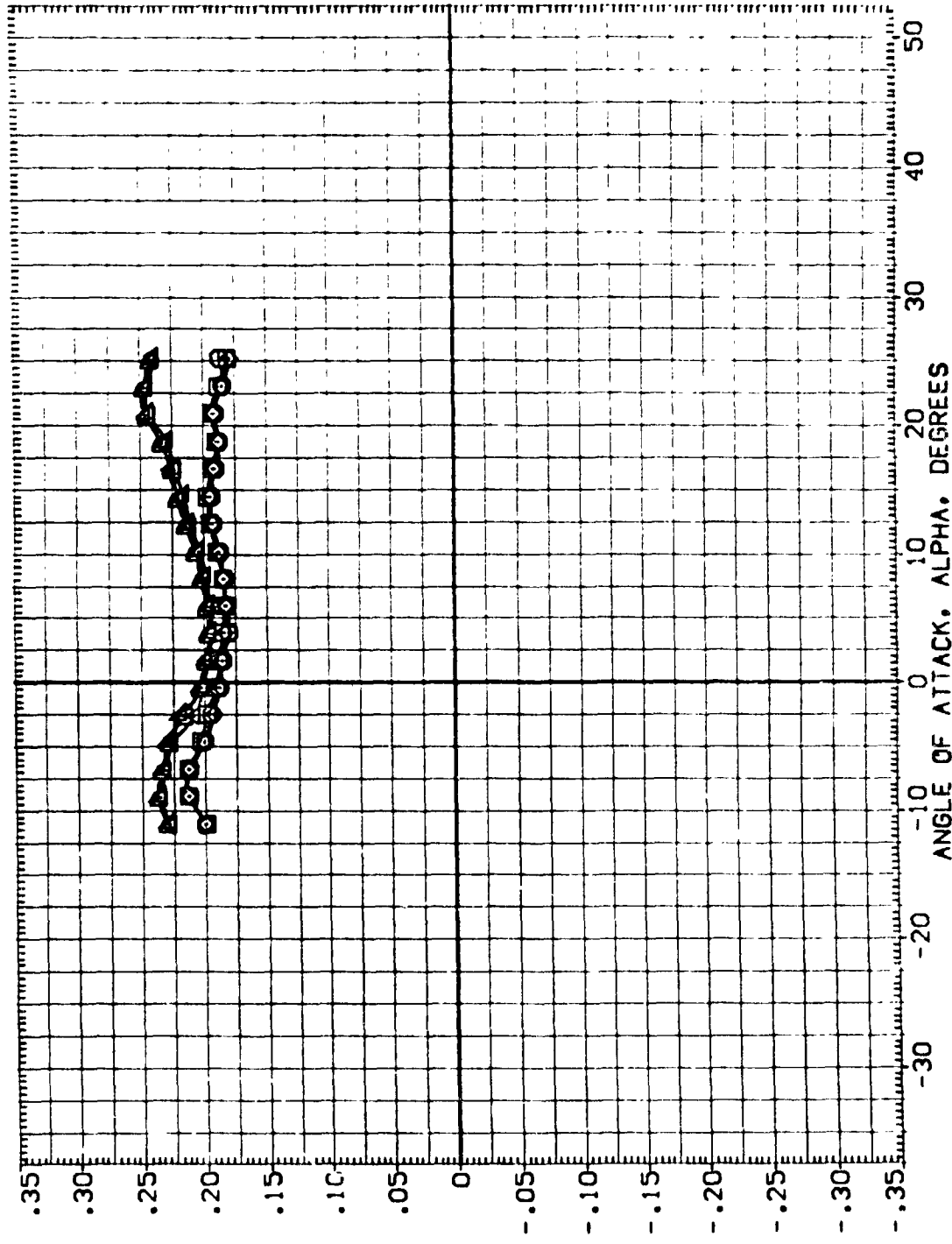


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON --20 AND-30 DEG

(A)MACH = .26

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD FLAP	SPDRK	AILRON	REFERENCE INFORMATION
{ AF8013 }	DA119A B61C1F12151V124E46V19R15X29	-20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{ AF8017 }	DA119A B61C1F12151V124E47V19R15X29	-20.000	.000	25.000	.000	LREF 174.8100 INCHES
{ AF8016 }	DA119A B61C1F12151V124E48V19R15X29	-20.000	.000	25.000	.000	BREF 936.8600 INCHES
{ AF8010 }	DA119A B61C1F12151V124E46V19R15X29	-30.000	.000	25.000	.000	YMRP 1076.4800 INCHES
{ AF8011 }	DA119A B61C1F12151V124E47V19R15X29	-30.000	.000	25.000	.000	ZMRP .0000 INCHES
{ AF8012 }	DA119A B61C1F12151V124E48V19R15X29	-30.000	.000	25.000	.000	SCALE 375.0000 INCHES

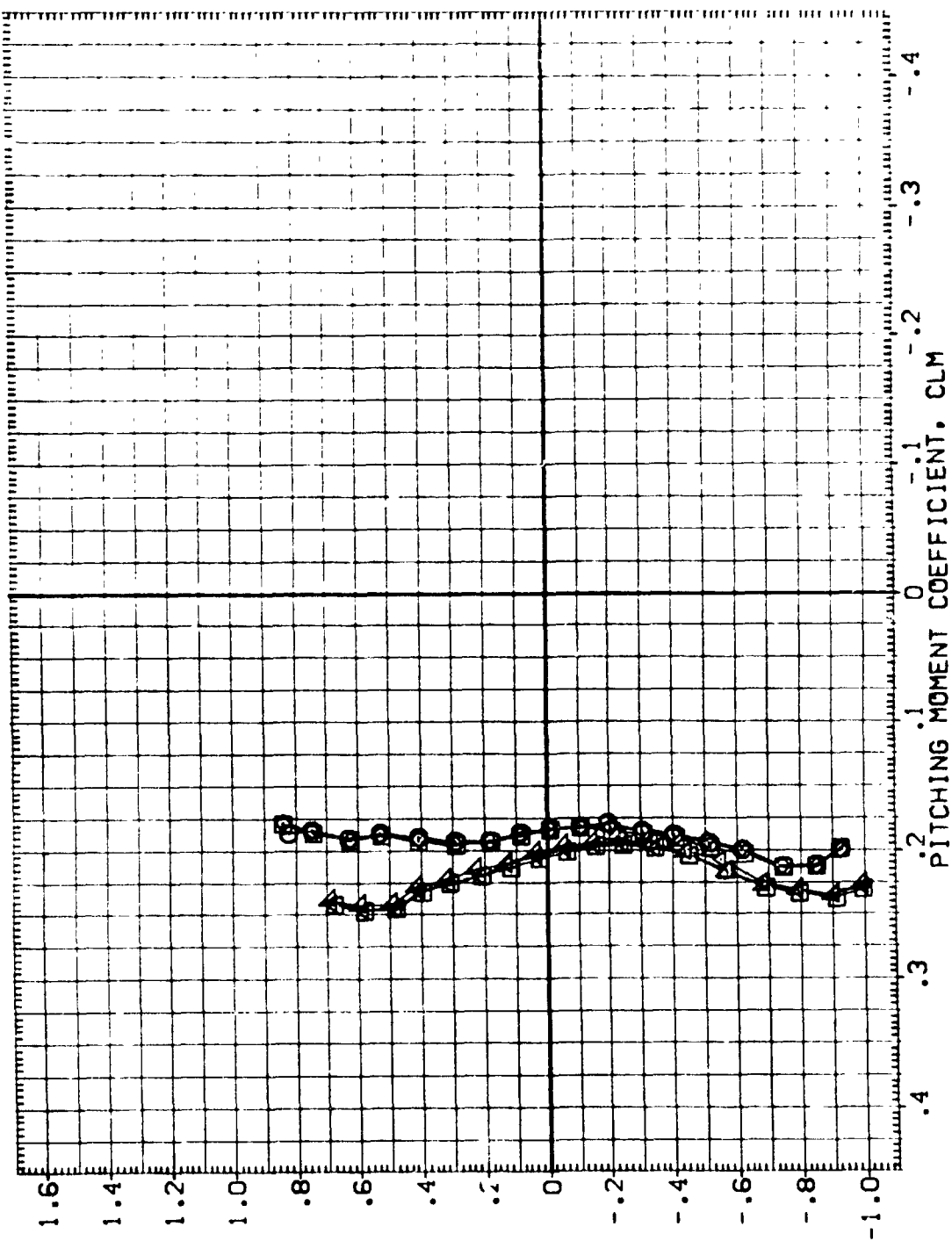


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -20 AND -30 DEG

(A)MACH = .26 PAGE 127



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	DOFLAP	SPDRBK	AILERON	REFERENCE INFORMATION
[AF8013]	0A119A 861C1F12051V124E46V1SR15X29	-20.000	.000	25.000	.000	SREF 2650.0100 SQ.FT.
[AF8017]	0A119A 861C1F12051V124E47V1SR15X29	-20.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8016]	0A119A 861C1F12051V124E48V1SR15X29	-20.000	.000	25.000	.000	BREF 938.6800 INCHES
[AF8010]	0A119A 861C1F12051V124E46V1SR15X29	-30.000	.000	25.000	.000	XMRP 1076.1800 INCHES
[AF8011]	0A119A 861C1F12051V124E47V1SR15X29	-30.000	.000	25.000	.000	YMRP .0000 INCHES
[AF8012]	0A119A 861C1F12051V124E48V1SR15X29	-30.000	.000	25.000	.000	ZMRP .0000 INCHES
						SCALE .0405

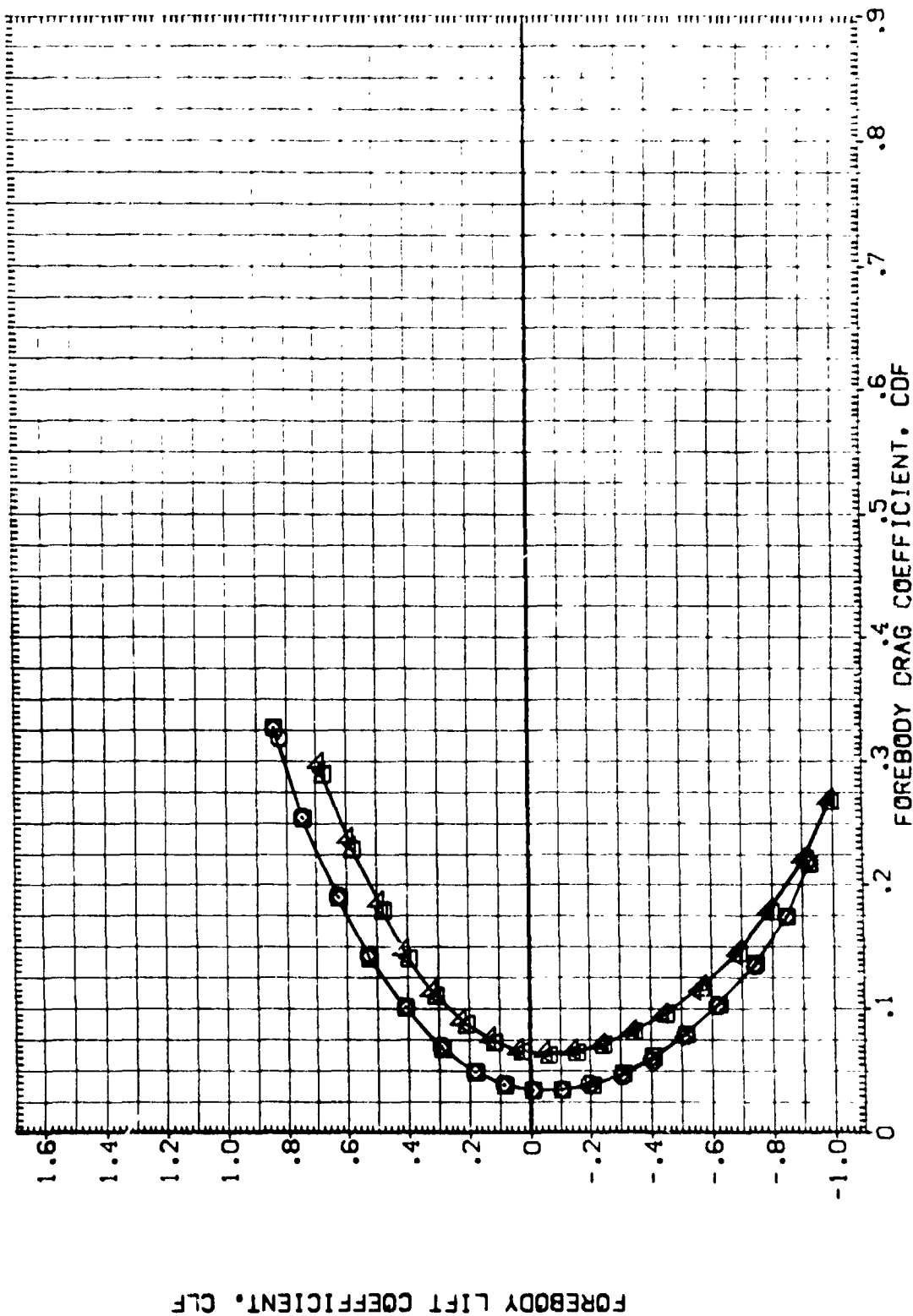


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-20 AND-30 DEG
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD FLAP	SPDRK	ATLRON	REFERENCE INFORMATION
{AF8013}	0A119A 86C11F 2V51V124E46V19R15X29	-20.000	.000	25.000	.000	SREF 2690.0100 50.FT
{AF8017}	0A119A 86C11F 2V51V124E47V19R15X29	-20.000	.000	25.000	.000	LREF 474.8100 INCHES
{AF8016}	0A119A 86C11F 2V51V124E46V19R15X29	-20.000	.000	25.000	.000	BREF 936.6800 INCHES
{AF8010}	0A119A 86C11F 2V51V124E46V19R15X29	-30.000	.000	25.000	.000	XMRP 1076.4800 INCHES
{AF8011}	0A119A 86C11F 2V51V124E47V19R15X29	-30.000	.000	25.000	.000	YMRP 375.0000 INCHES
{AF8012}	0A119A 86C11F 2V51V124E46V19R15X29	-30.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

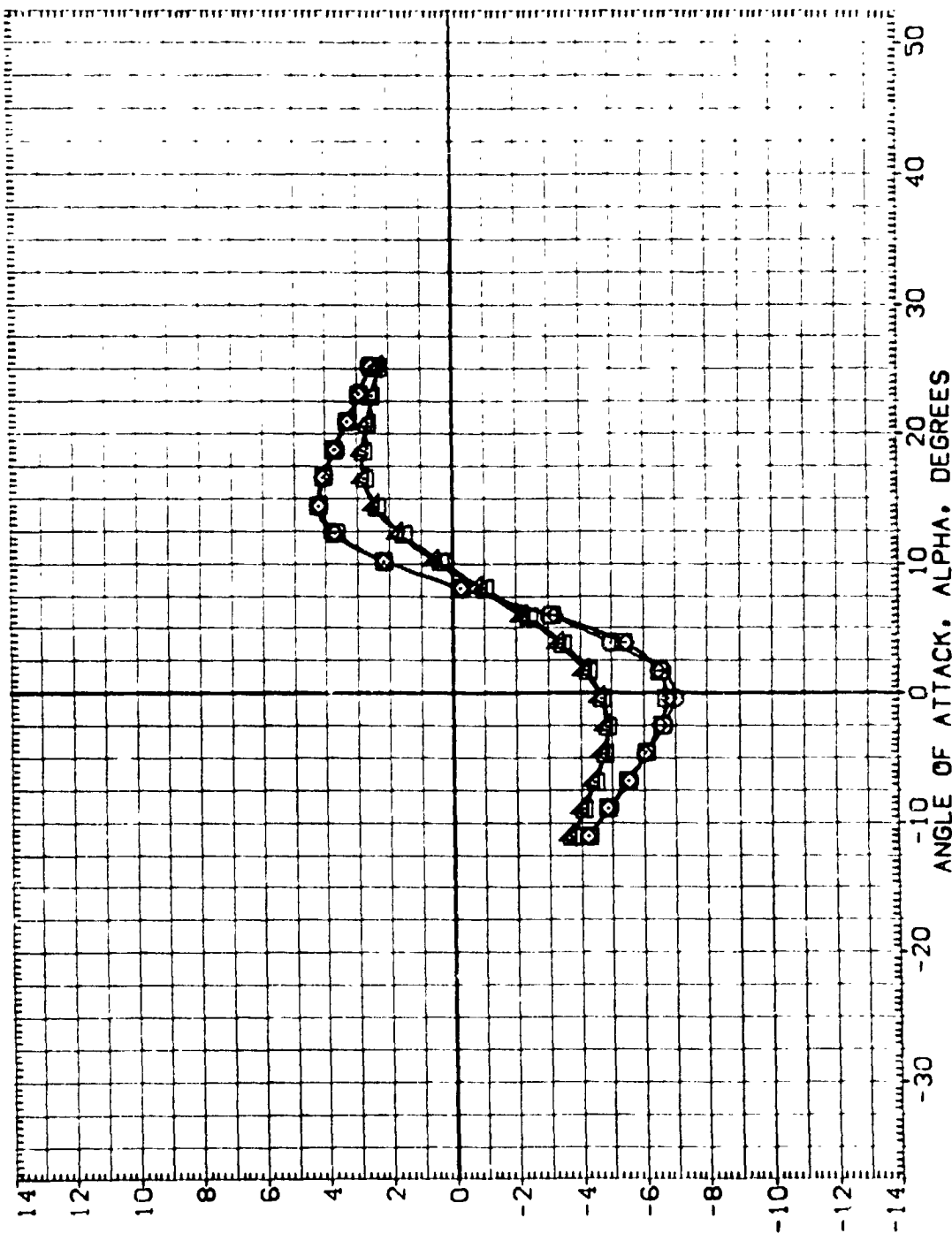


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON =-20 AND-30 DEG
 (A)MACH = .26
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DATA SET SYMBOL CONFIGURATION DESCRIPTION

{AF8013}	0A119A	081C11F	24E46V	SR15X29
{AF8017}	0A119A	081C11F	24E47V	SR15X29
{AF8016}	0A119A	081C11F	24E48V	SR15X29
{AF8010}	0A119A	081C11F	24E49V	SR15X29
{AF8011}	0A119A	081C11F	24E47V	SR15X29
{AF8012}	0A119A	081C11F	24E48V	SR15X29

REFERENCE INFORMATION

REF	2680.0100	50.FT.
LINEF	474.8100	INC-ES
BREF	936.6800	INC-ES
XMRP	1076.4800	INC-ES
YMRP	.0000	INC-ES
ZMRP	375.0000	INC-ES
SCALE	.0405	SCALE

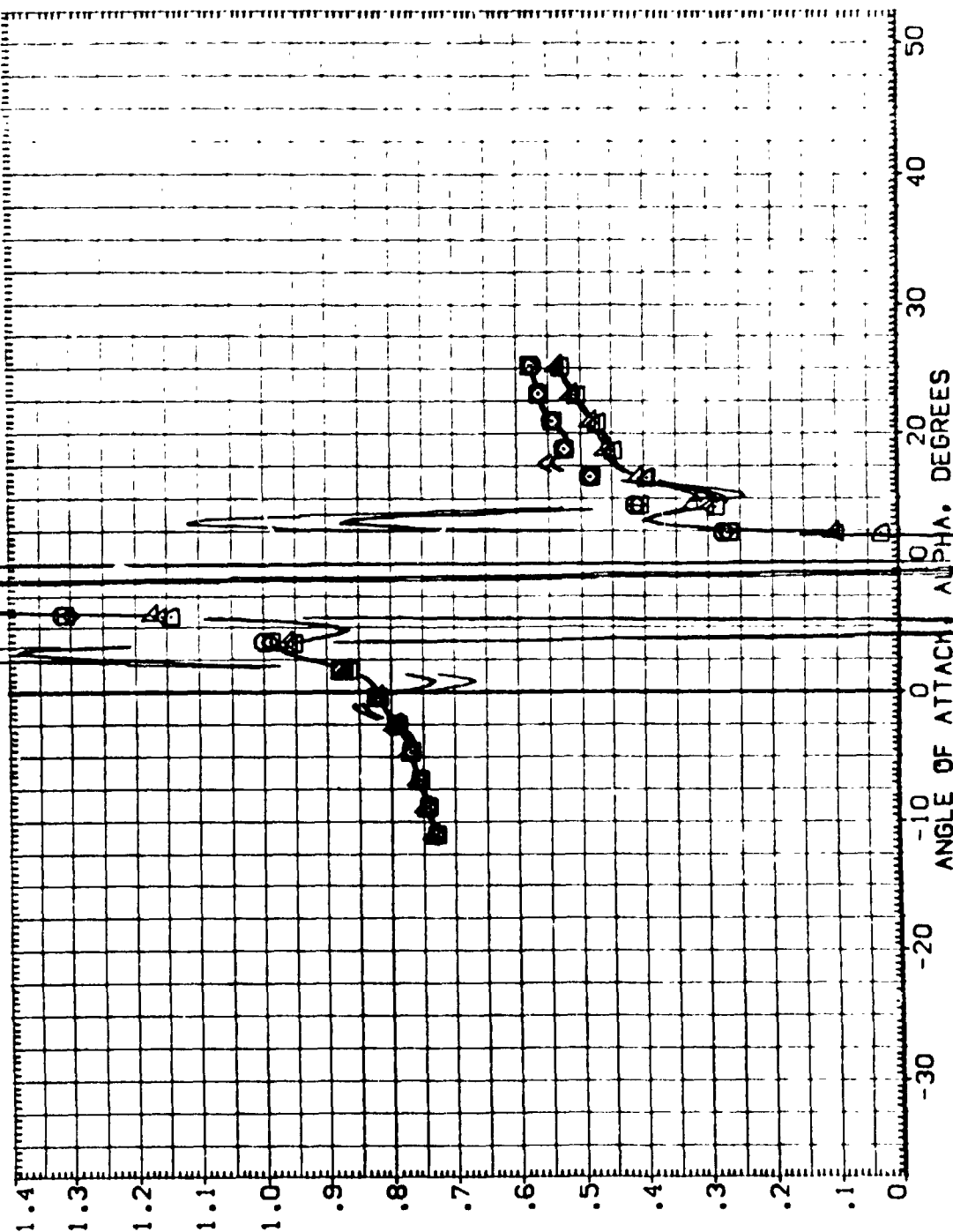


FIG 16 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELFVN = -20 AND -30 DEG
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
(AF8078)	0A119A 861C1F12-51V124E46V19R15X29	-40.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8079)	0A119A 861C1F12-51V124E47V19R15X29	-40.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8080)	0A119A 861C1F12-51V124E48V19R15X29	-40.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8081)	0A119A 861C1F12-51V124E49V19R15X29	-40.000	.000	25.000	.000	YMRP 1076.4800 INCHES
(AF8082)	0A119A 861C1F12-51V124E50V19R15X29	-40.000	.000	25.000	.000	ZMRP 375.0000 INCHES
(AF8083)	0A119A 861C1F12-51V124E51V19R15X29	-40.000	.000	25.000	.000	SCALE .0405 INCHES

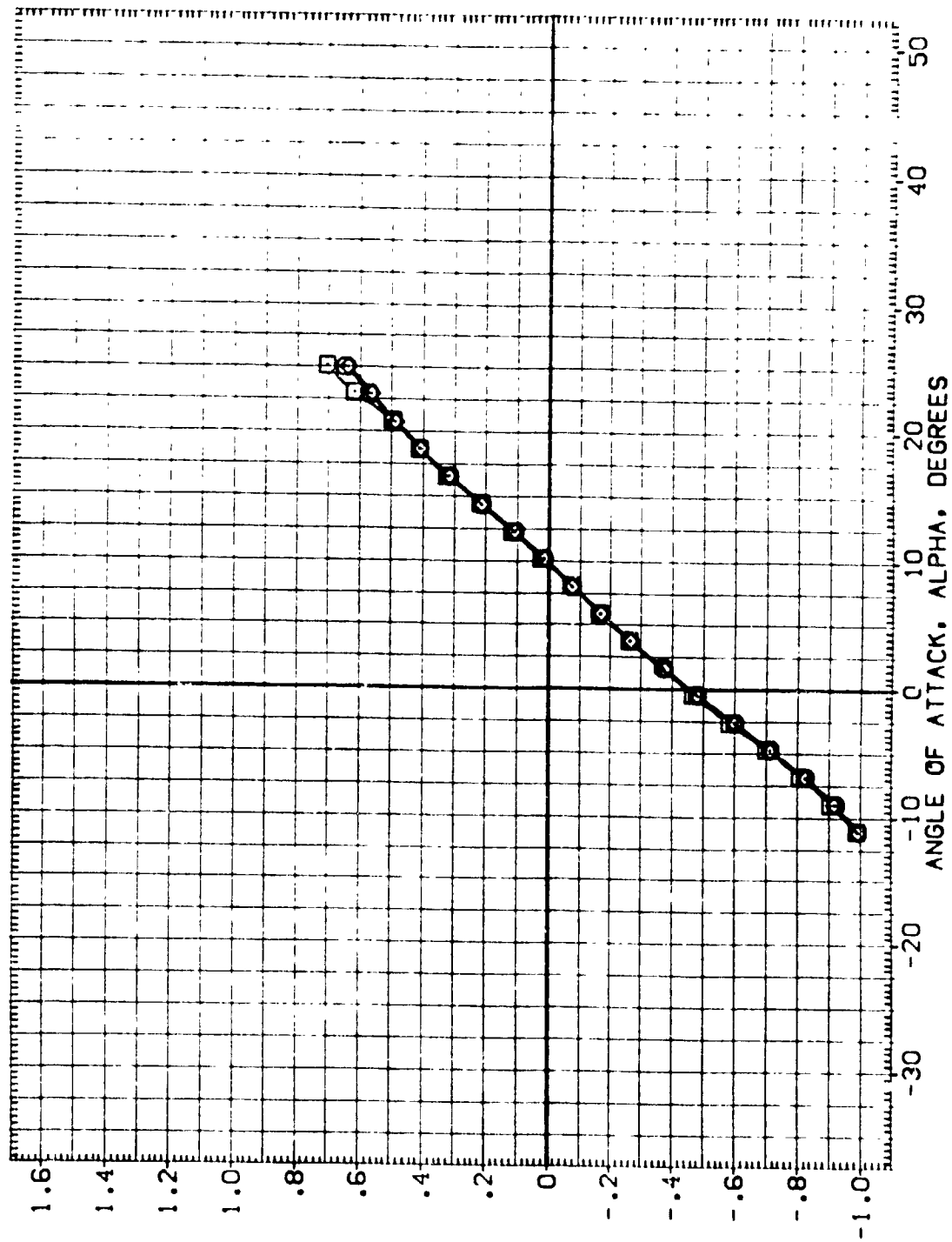


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

DATA SET SYMBOL: 0119A
 CONFIGURATION DESCRIPTION: 0119A
 0119A
 0119A

REFERENCE INFORMATION
 SREF: 2690.0100
 LREF: 474.8100
 BREF: 936.6800
 XMRP: 1076.4800
 YMRP: 375.0000
 ZMRP: 375.0000
 SCALE: .0405

ELEVON
 -40.000
 -40.000
 -40.000

ROFLAP
 .000
 .000
 .000

SPOBRK
 25.000
 25.000
 25.000

AIRLON
 .000
 .000
 .000

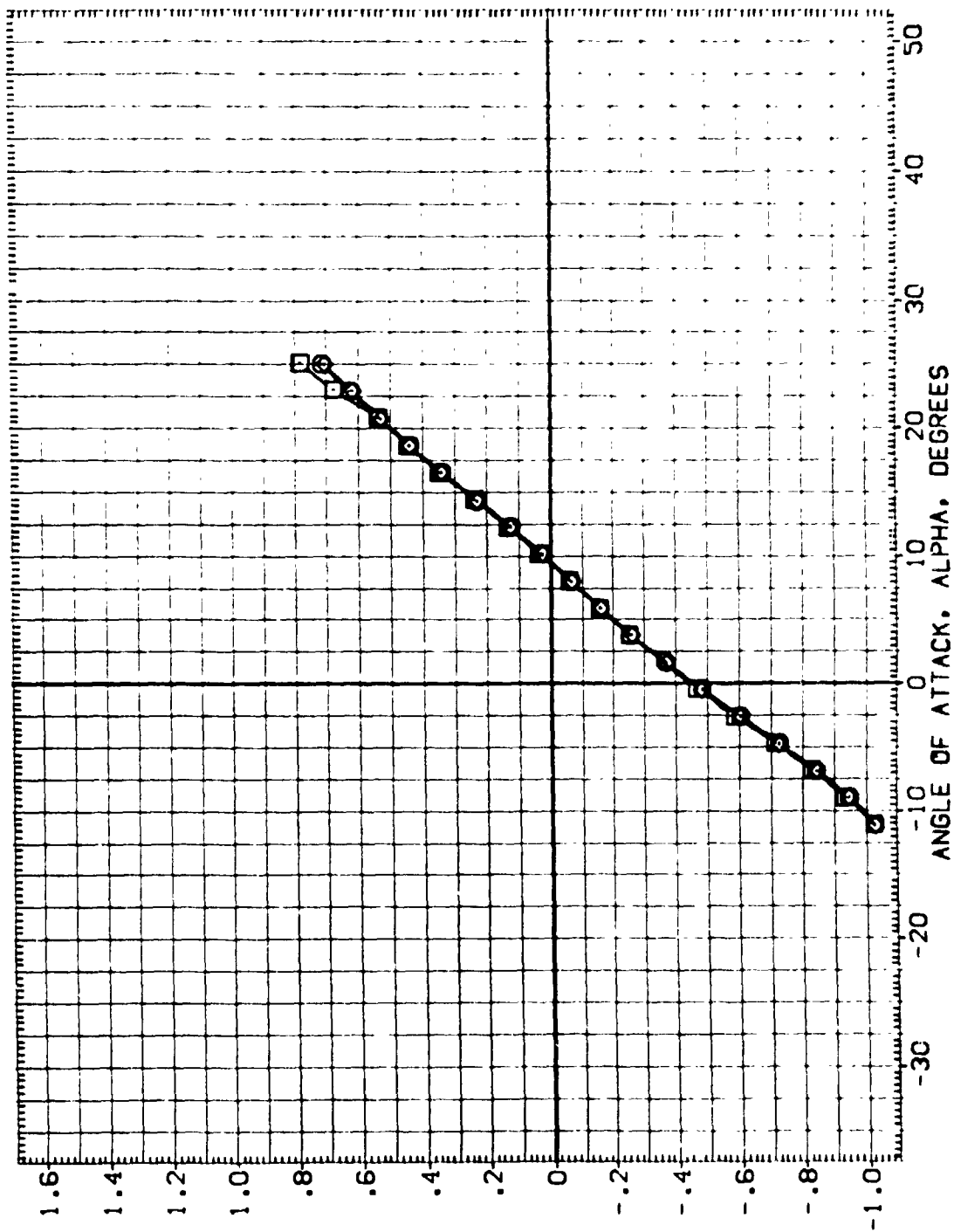


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDB-M	AILRON	REFERENCE INFORMATION
(AF8009)	0A119A B61C11F1 2V51V124E46V19R15X28	-40.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8005)	0A119A B61C11F1 2V51V124E47V19R15X28	-40.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8006)	0A119A B61C11F1 2V51V124E48V19R15X28	-40.000	.000	25.000	.000	BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405

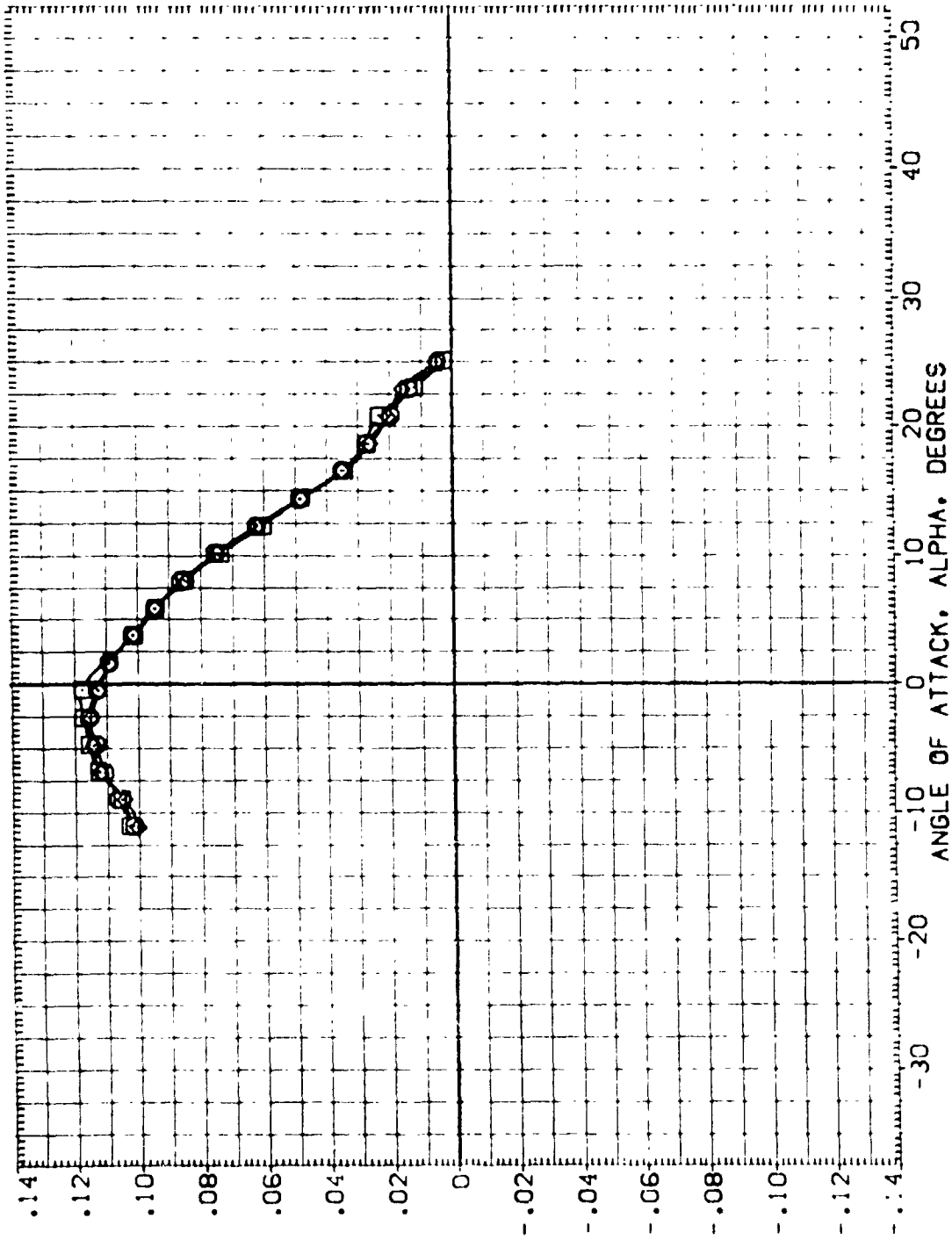


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

DATA SE, SYMBOL, CONF, IQUATION, DESCRIPTION

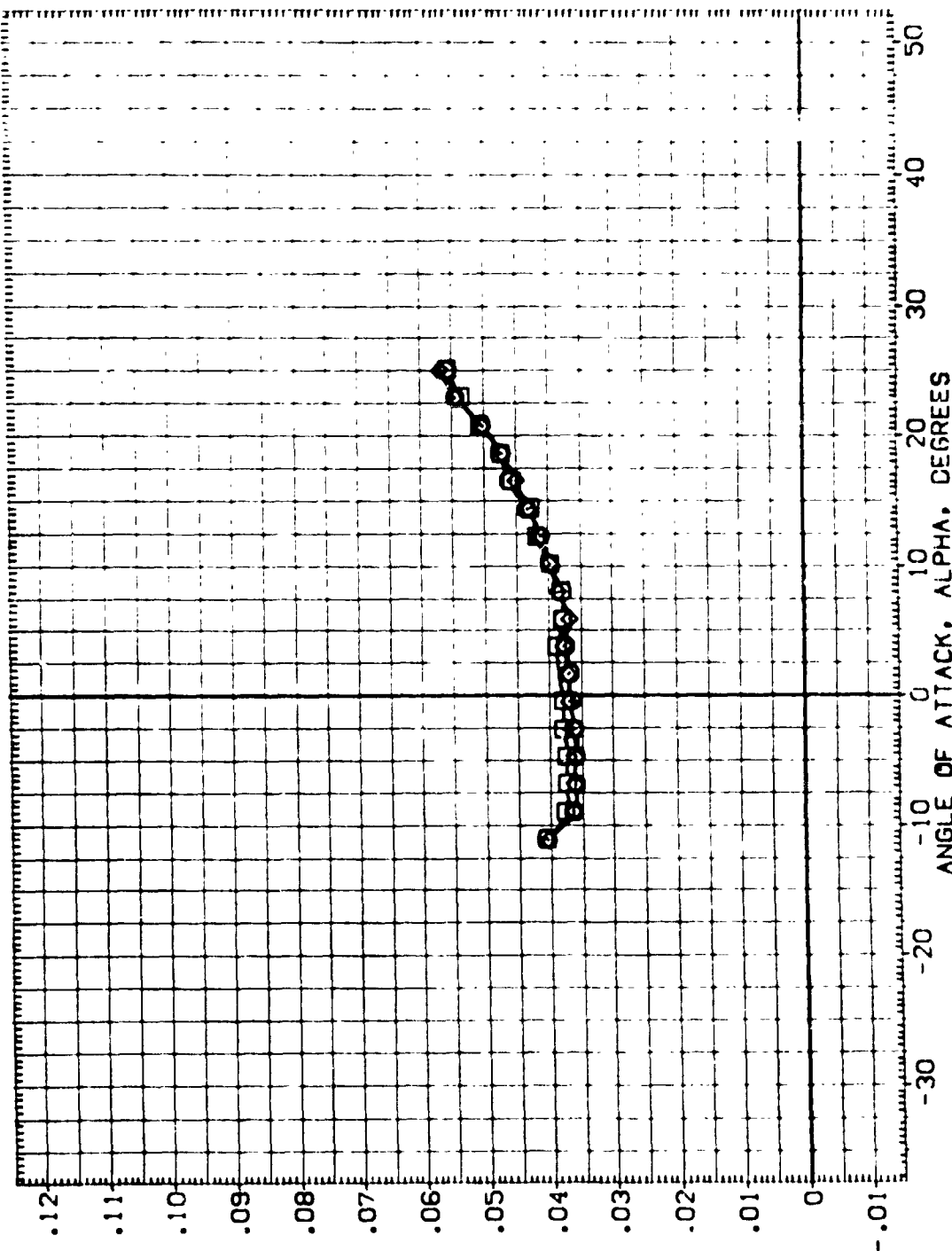
0A1119A	081C11F	276	VI	24E48V	SR15X29
0A1119A	081C11F	276	VI	24E47V	SR15X29
0A1119A	081C11F	276	VI	24E48V	SR15X29

REFERENCE INFORMATION

SREF	2690.0100	50.00	INCHES
LREF	474.8100	11.00	INCHES
BREF	936.5800	23.00	INCHES
XMRP	1076.4800	26.00	INCHES
ZMRP	375.0000	9.40	INCHES
SCALE			

ELEVON, 80FLAP, 80SPRK, ALLRON

-40.000	.000	25.000	.000
-40.000	.000	23.000	.000
-40.000	.000	25.000	.000



BASE AXIAL FORCE COEFFICIENT, Cx9

FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

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DATA SET SYMBOL CONFIGURATION DESCRIPTION
(A18009) 0A11SA B6C1IF 2-5 V124E16V SR15X29
(A18005) 0A11SA B6C1IF 2-5 V124E17V SR15X29
(A18006) 0A11SA B6C1IF 2-5 V124E18V SR15X29

ELEVON 80FLAP SPOBRK ALLRON
-40.000 .000 25.000 .000
-40.000 .000 25.000 .000
-40.000 .000 25.000 .000

REFERENCE INFORMATION
SREF 2600 0100 50.00 INCHES
LREF 474 8100 INCHES
BREF 936 6800 INCHES
XMRP 1075 4800 INCHES
YMRP 375 0000 INCHES
SCALE .0105

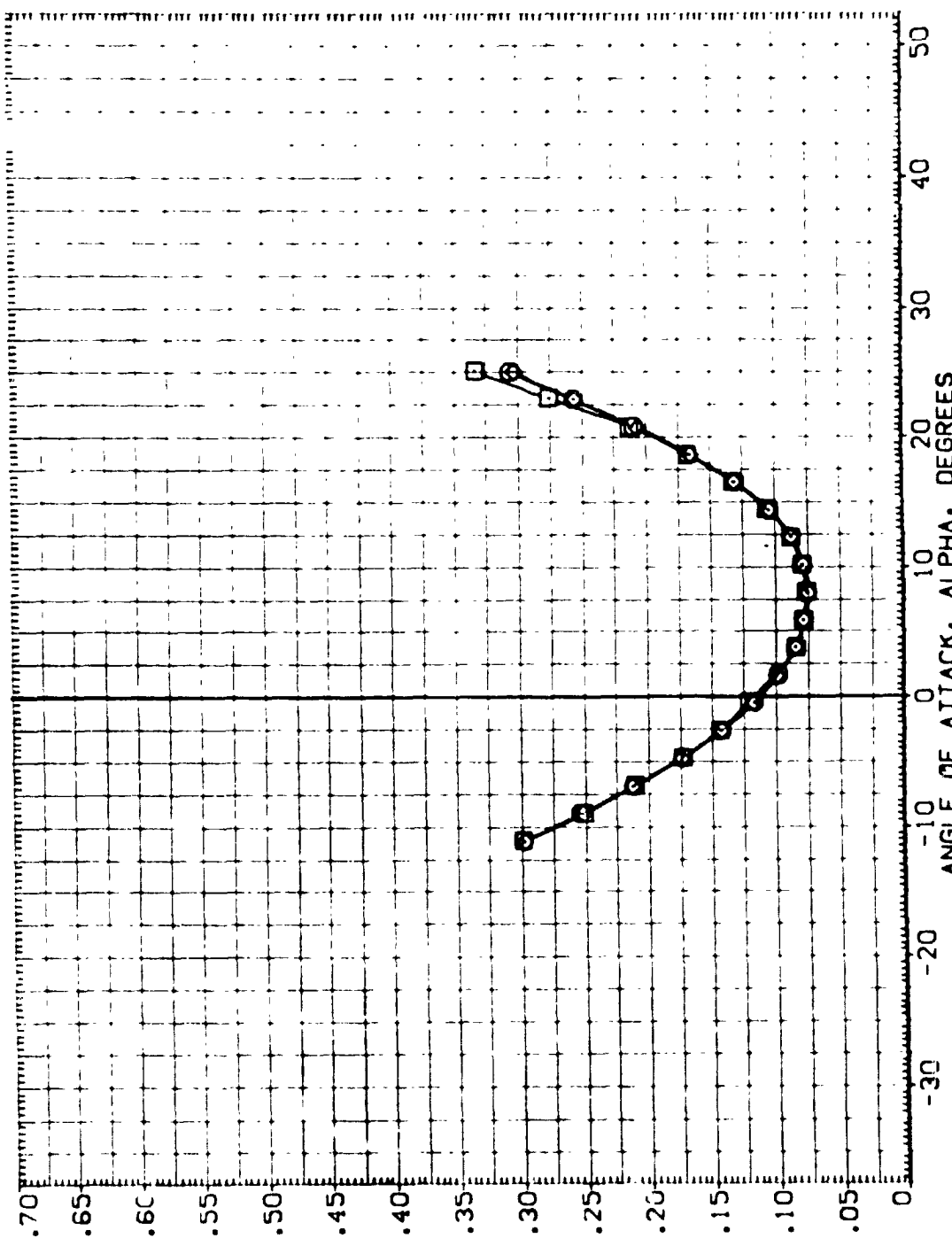


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	DOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
[AF8008]	0A119A BS1C1F12P51V124E46V1SR15K29	-40.000	.000	25.000	.000	SREF 2650.0100 SQ.F.T.
[AF8009]	0A119A BS1C1F12P51V124E47V1SR15K29	-40.000	.000	25.000	.000	LREF 174.8100 INCHES
[AF8006]	0A119A BS1C1F12P51V124E46V1SR15K29	-40.000	.000	25.000	.000	BREF 356.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0405 SCALE

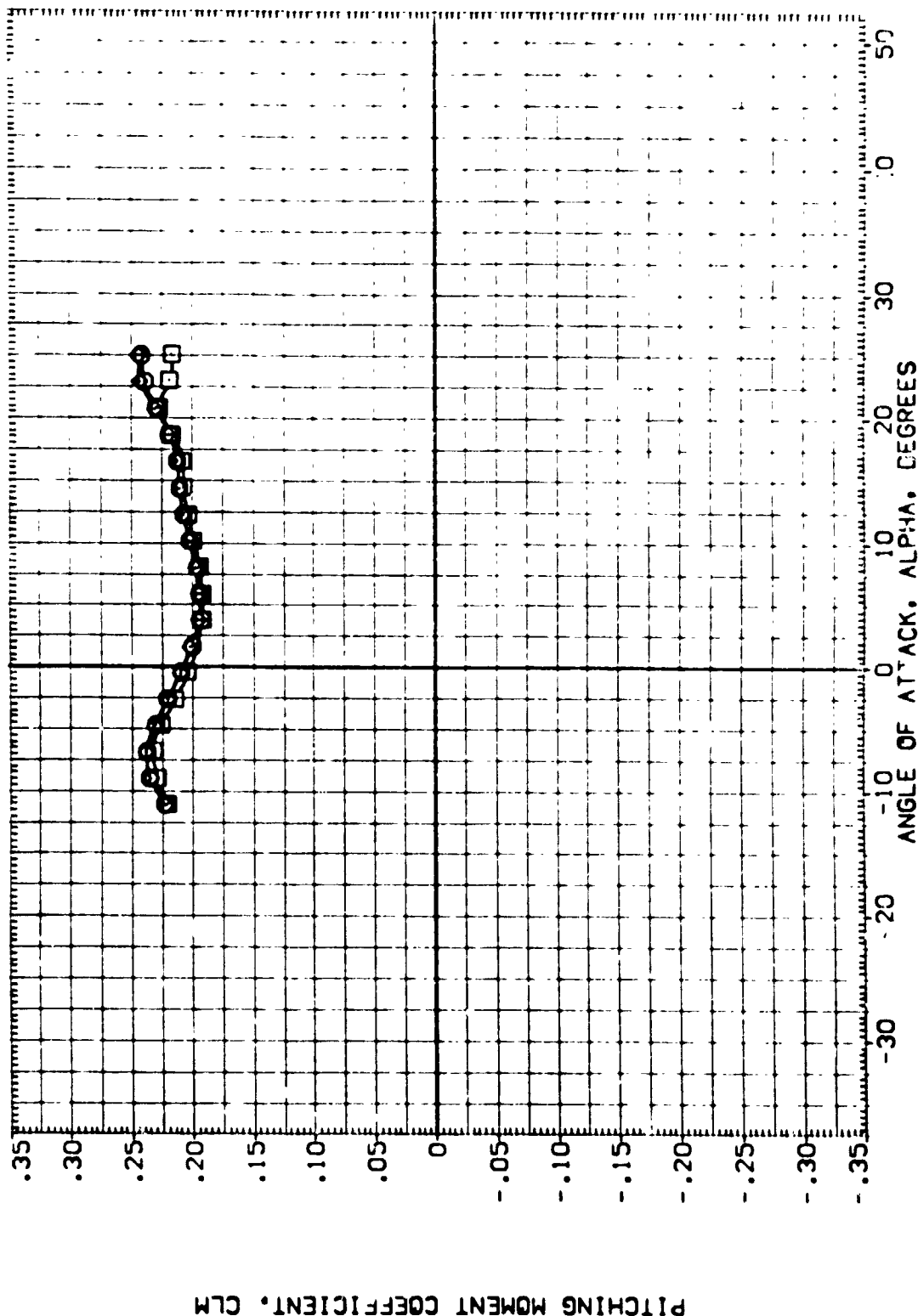


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	ILRON	REFERENCE INFORMATION
(AF8005)	GA119A B61C1F12H51V124E46V1SR15X29	-40.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8005)	GA119A B61C1F12H51V124E47V1SR15X29	-40.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8006)	GA119A B61C1F12H51V124E48V1SR15X29	-40.000	.000	23.000	.000	BREF 936.5900 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .3105

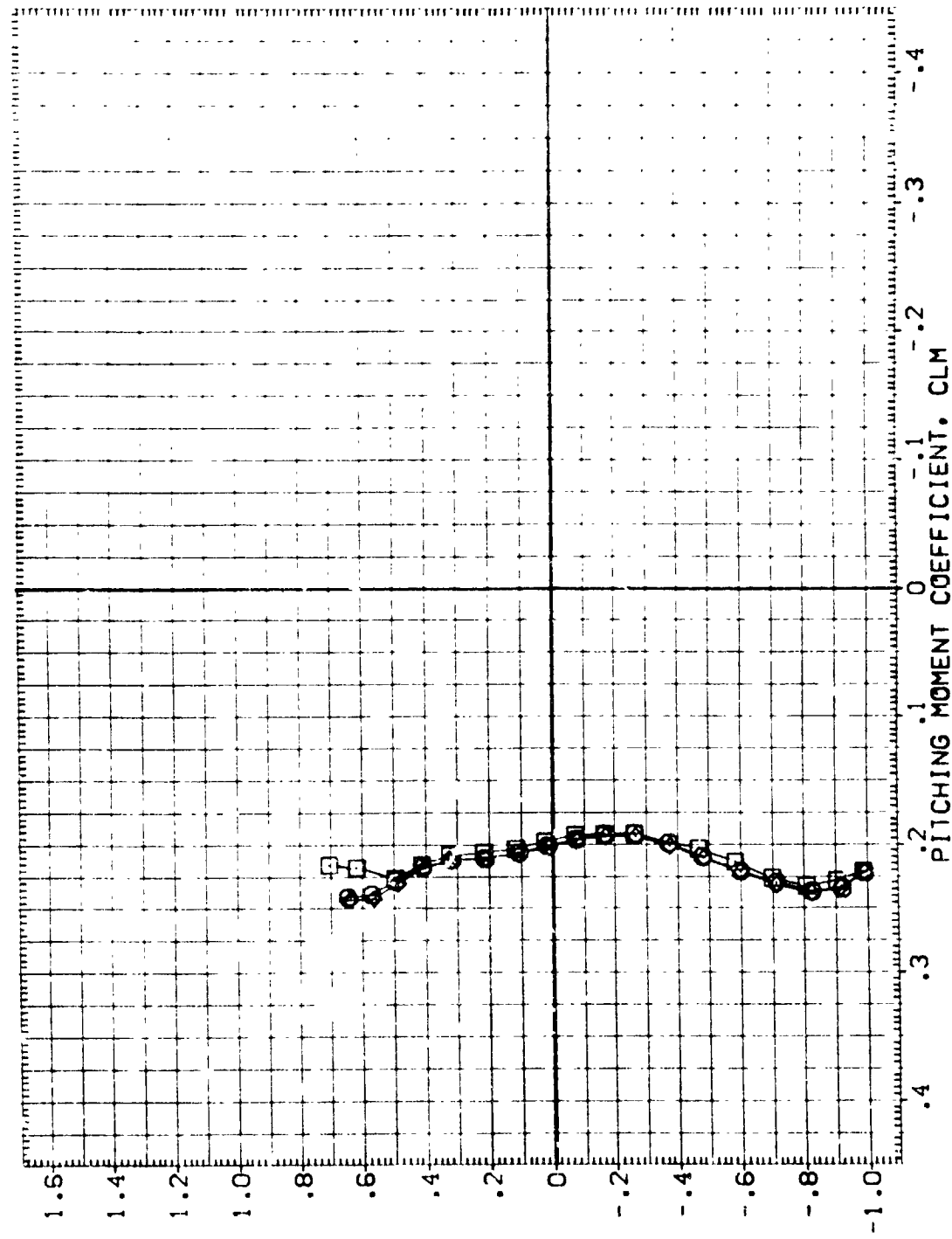


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

(A)MACH = .26

DATA SET SYMBOL: (AF9005) (AF9006) (AF9009)

CONFIGURATION DESCRIPTION: 0A119A B61C11F1251V124E46V19R15X29
 0A119A B61C11F1251V124E47V19R15X29
 0A119A B61C11F1251V124E48V19R15X29

ELEVON	BOFLAP	SPDBRK	ATLRON	REFERENCE INFORMATION
-40.000	.000	25.000	.000	SREF 2030.0100 50.11
-40.000	.000	25.000	.000	LREF 474.8100 10.65
-40.000	.000	25.000	.000	BREF 936.6800 10.65
				XMRP 1076.4800 10.65
				ZMRP .0000 10.65
				SCALE 375.0000 10.65
				SCALE .0405

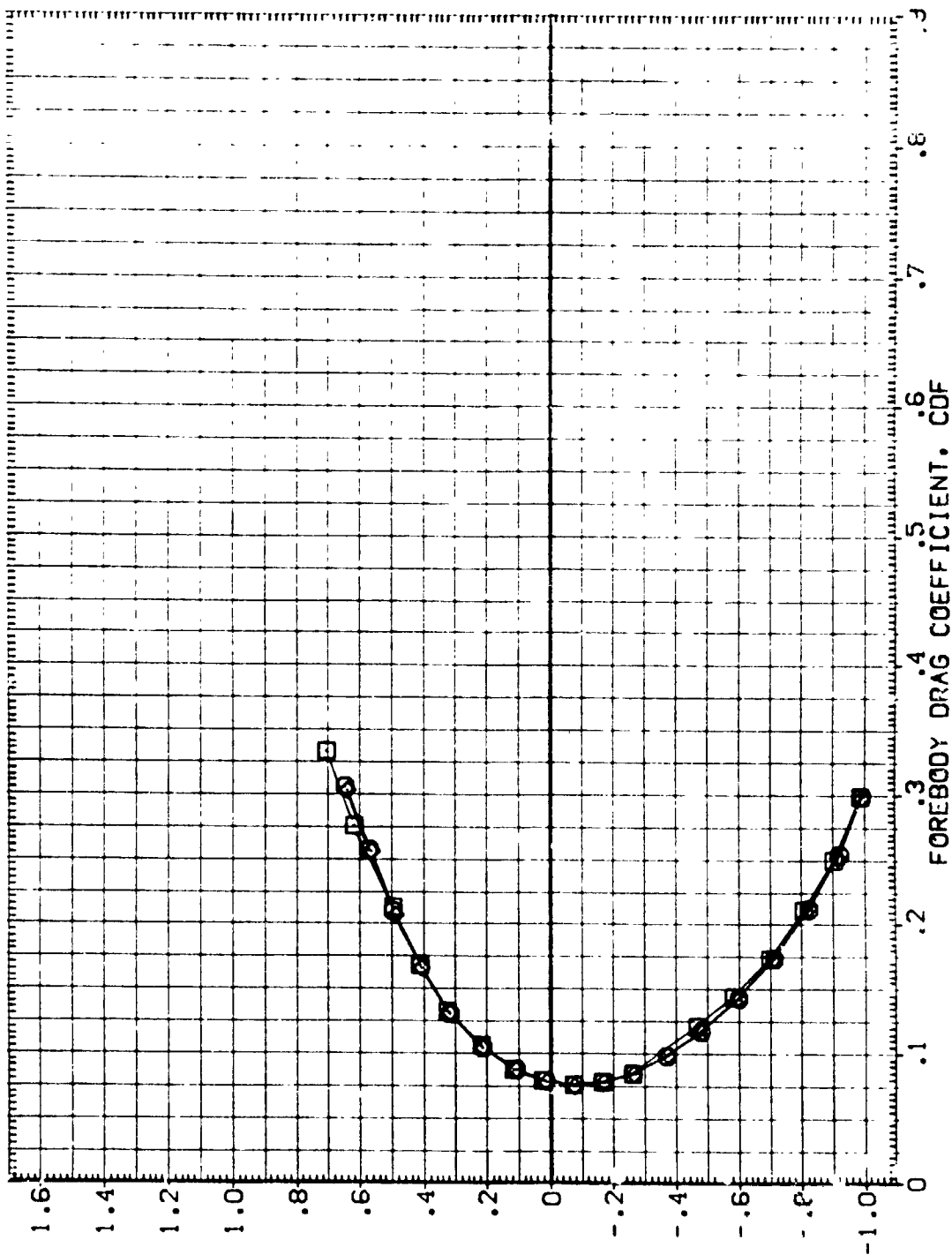


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS. ELEVON = 40 DEG

(MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDF LAP	SPOBRK	AILRON	REFERENCE INFORMATION
{ AF8009 }	0A119A B61C11F12451V124E46V19R15X29	-40.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
{ AF8005 }	0A119A B61C11F12451V124E47V19R15X29	-40.000	.000	25.000	.000	LREF 474.8100 INCHES
{ AF8006 }	0A119A B61C11F12451V124E48V19R15X29	-40.000	.000	25.000	.000	BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0405

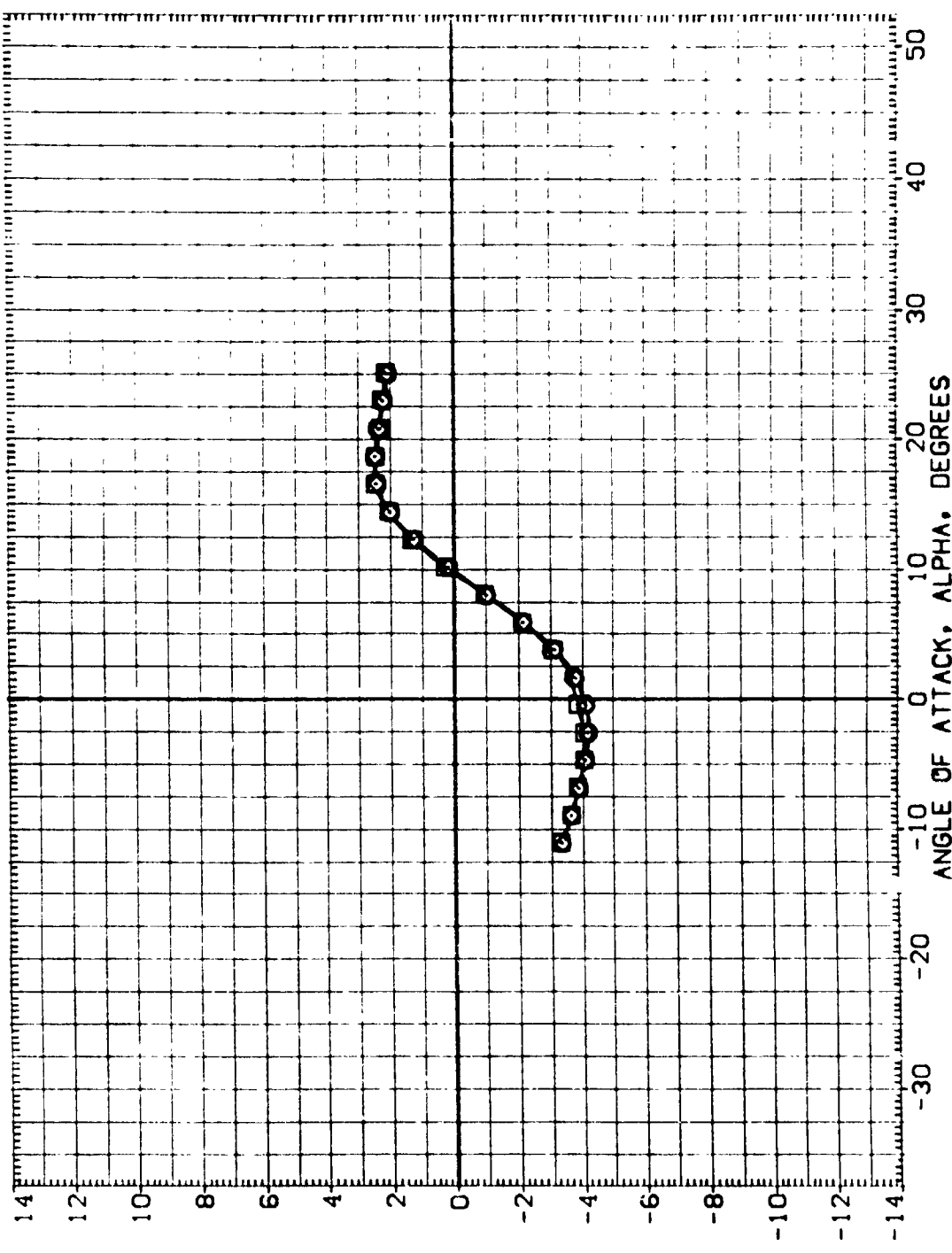


FIG 17 EFFECT OF FLAPPER DOOR ON ELEVON EFFECTIVENESS, ELEVON = -40 DEG

DATA SET SYMBOL	CONF	IGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILERON	REFERENCE INFORMATION
(AF8004)	0A119A	B61C11F12751V124E18V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8042)	0A119A	B61C11F12751V124E18V19R15X29	.000	.000	25.000	.000	LREF 474.6100 INCHES
(AF8024)	0A119A	B61C11F12751V124E18V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8037)	0A119A	B61C11F12751V124E18V19R15X29	10.000	.000	25.000	.000	XREF 1076.1800 INCHES
(AF8050)	0A119A	B61C11F12751V124E18V19R15X29	15.000	.000	25.000	.000	YREF 375.0000 INCHES
(AF8048)	0A119A	B61C11F12751V124E18V19R15X29	15.000	.000	25.000	.000	ZREF 375.0000 INCHES
							SCALE .0100

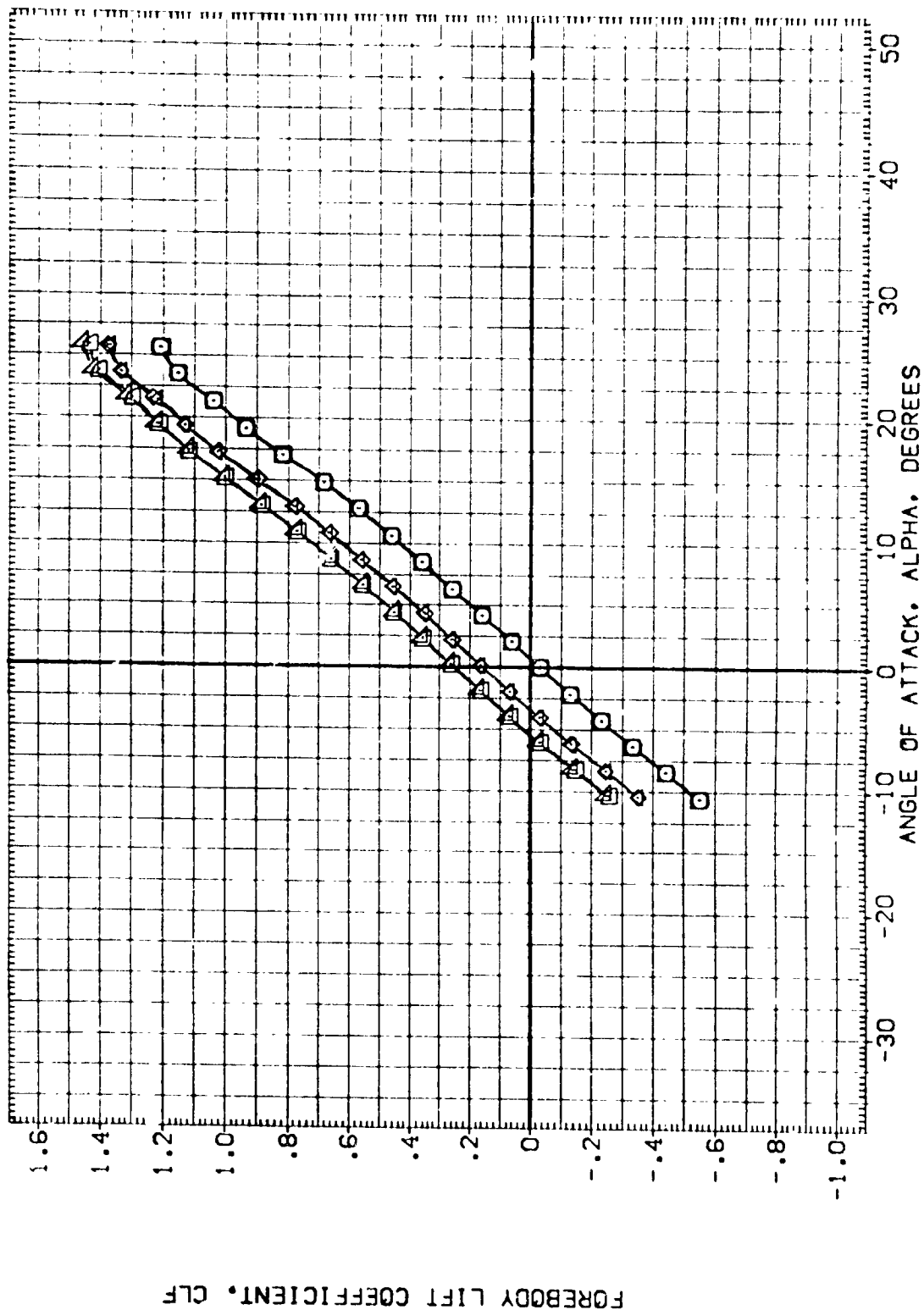


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, 10, 15
 (A)MACH = .26 PAGE 141

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
[AF8004]	0A119A B61C11F 2M51V1 24E48V1 9R15X29	.000	.000	25.000	.000	9REF 2690.0100 50.FT.
[AF8042]	0A119A B61C11F 2M51V1 24E49V1 9R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8024]	0A119A B61C11F 2M51V1 24E48V1 9R15X29	10.000	.000	25.000	.000	9REF 936.6800 INCHES
[AF8037]	0A119A B61C11F 2M51V1 24E49V1 9R15X29	10.000	.000	25.000	.000	XREF 1076.4800 INCHES
[AF3050]	0A119A B61C11F 2M51V1 24E48V1 9R15X29	15.000	.000	25.000	.000	YREF 375.0000 INCHES
[AF8048]	0A119A B61C11F 2M51V1 24E51V1 9R15X29	15.000	.000	25.000	.000	ZREF 375.0000 INCHES
						SCALE .04CS

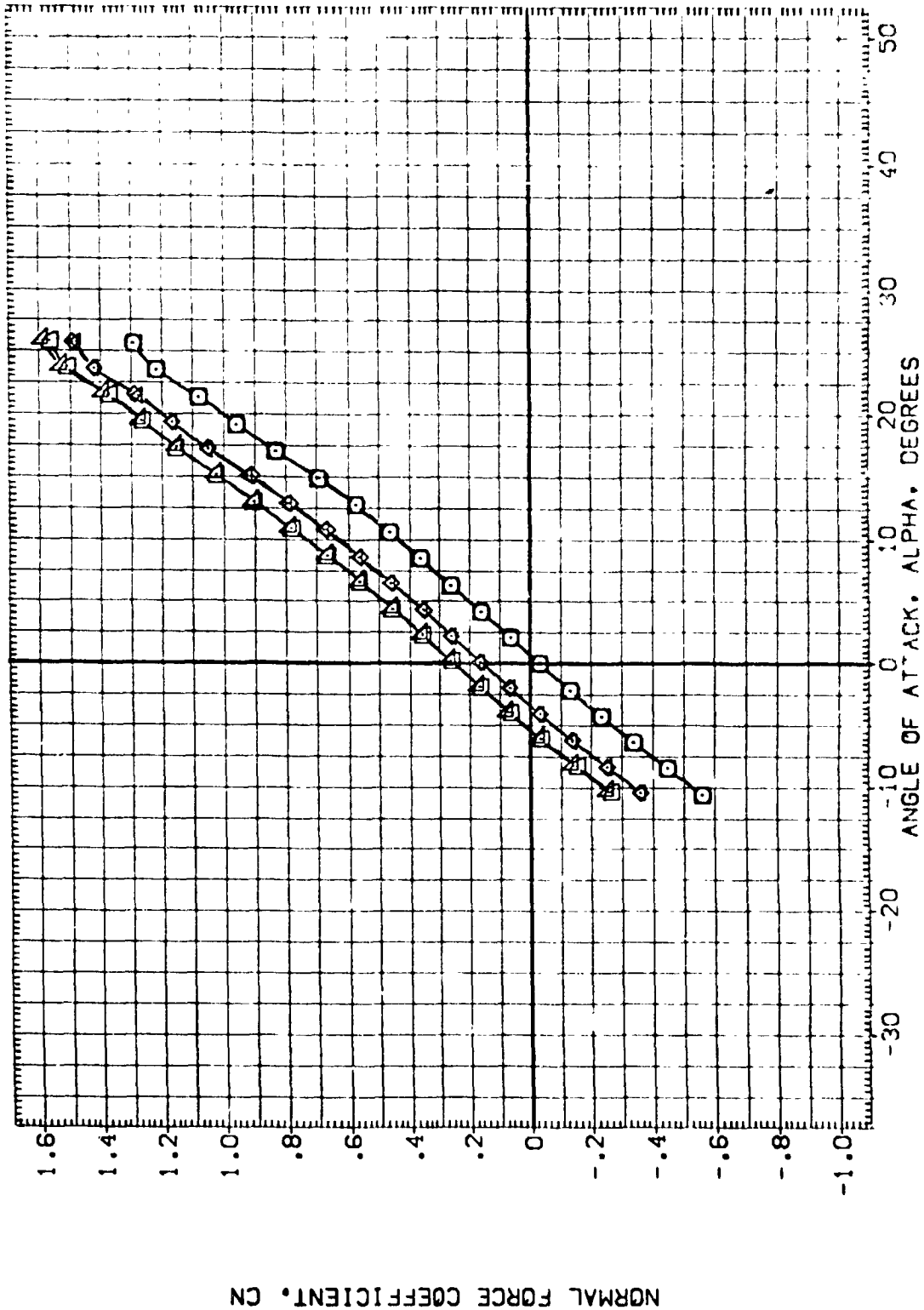


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON - 3, 10, 15
 (A)MACH = .26 PAGE 152

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPODBRK	AIRLON	REFERENCE INFORMATION
[AF8004]	0A119A 06 C1 F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8042]	0A119A 06 C1 F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8024]	0A119A 06 C1 F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8037]	0A119A 06 C1 F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	XWGP 1076.4800 INCHES
[AF8050]	0A119A 06 C1 F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	YWGP 375.0000 INCHES
[AF8048]	0A119A 06 C1 F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	SCALE .0405

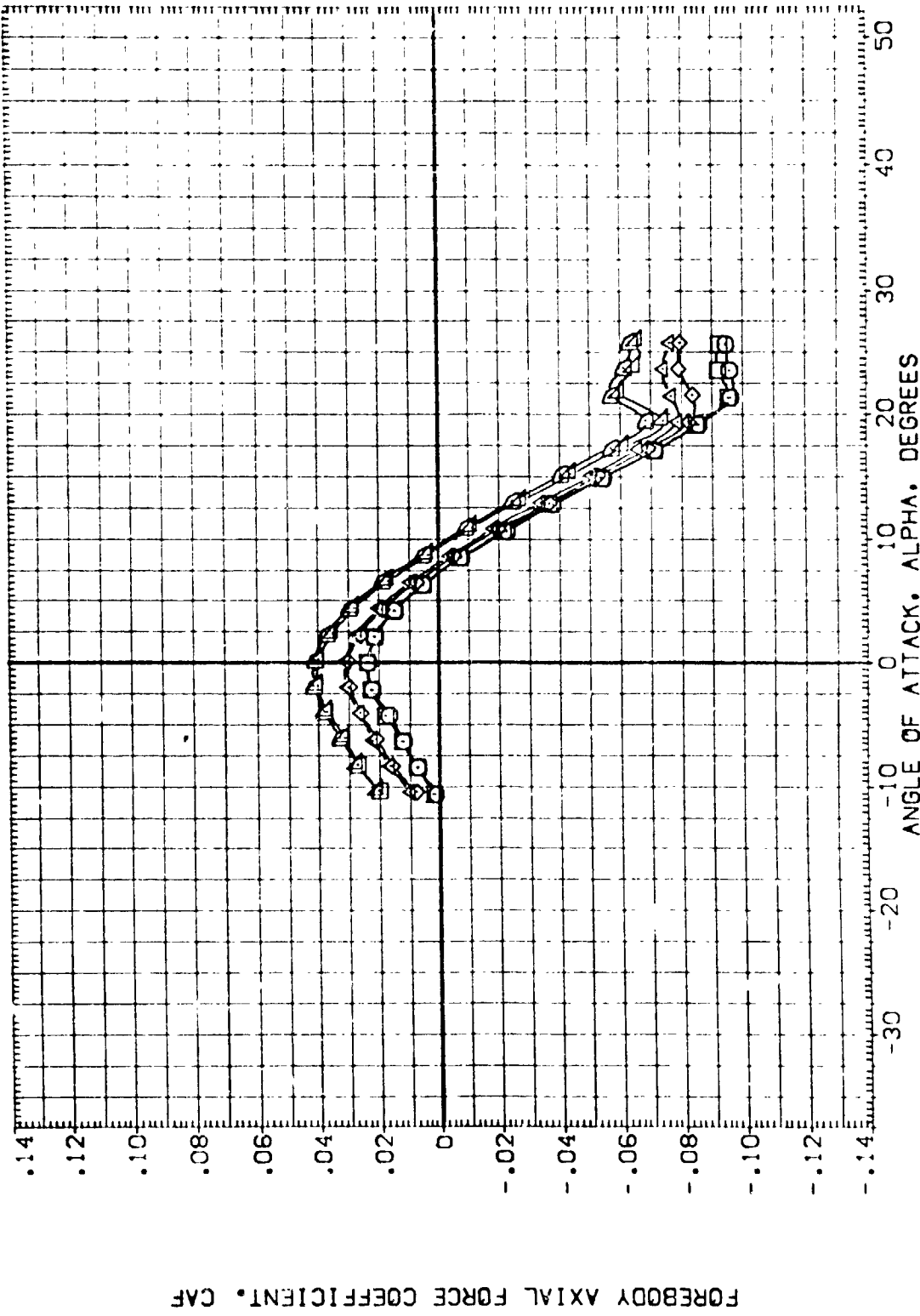


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, 10, 15
 (A)MACH = .26

DATA SET BY 30L	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRX	AIRLON	REFERENCE INFORMATION
{ AF8004 }	GA11SA 56C1F12V5V124E18V19V15X23	.000	.000	.000	.000	2690.0100
{ AF8042 }	GA11SA 56C1F12V5V124E18V19V15X23	.000	.000	.000	.000	474.8100
{ AF8024 }	GA11SA 56C1F12V5V124E18V19V15X23	.000	.000	.000	.000	938.5800
{ AF8037 }	GA11SA 56C1F12V5V124E18V19V15X23	.000	.000	.000	.000	1076.4800
{ AF8050 }	GA11SA 56C1F12V5V124E18V19V15X23	.000	.000	.000	.000	375.0000
{ AF8048 }	GA11SA 56C1F12V5V124E18V19V15X23	.000	.000	.000	.000	SCALE

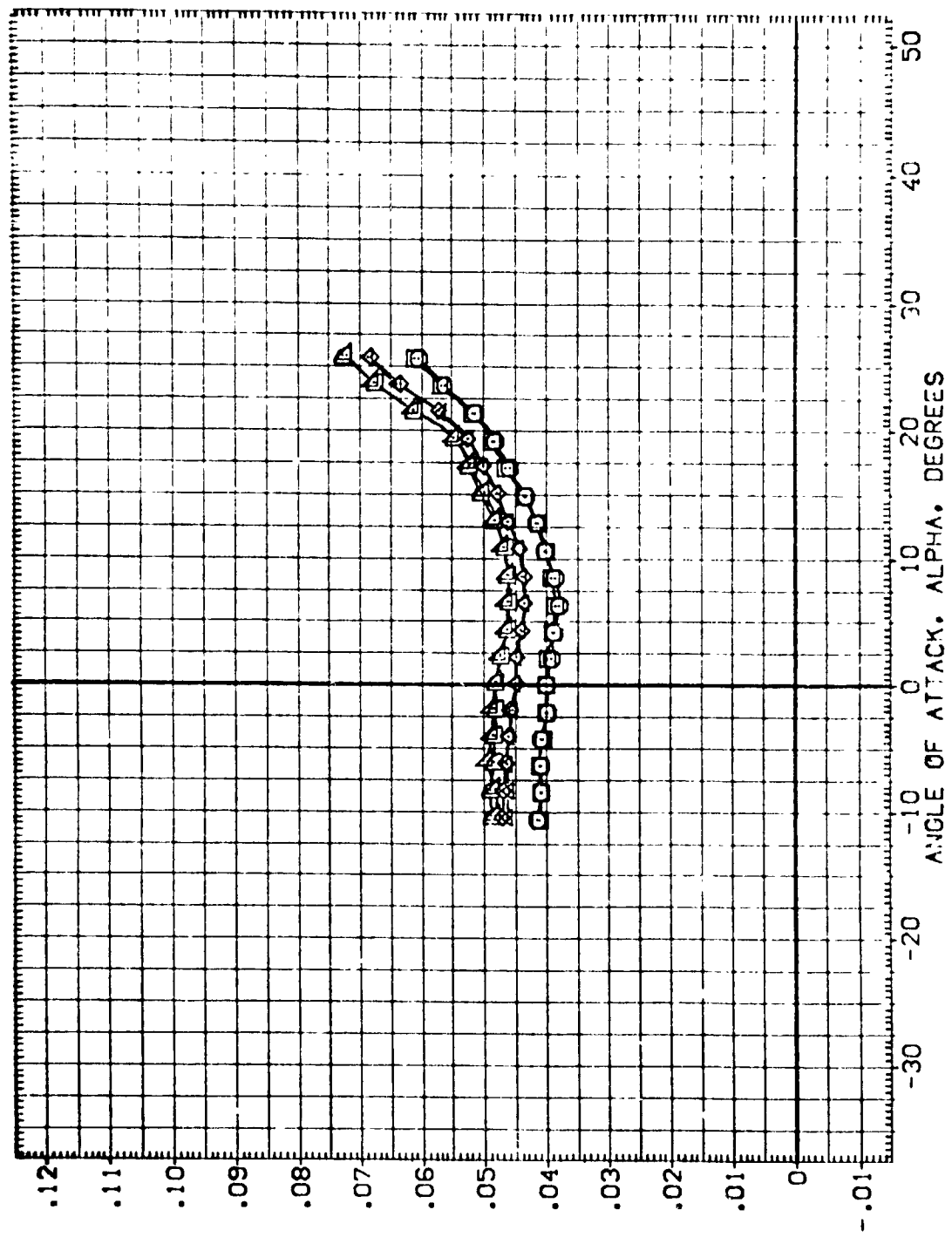


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, 10, 15
 (A)MACH = .26
 PAGE 144

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	ROFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
[AF8004]	0A119A B61C1F 2MS V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8042]	0A119A B61C1F 2MS V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8024]	0A119A B61C1F 2MS V124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.8600 INCHES
[AF8037]	0A119A B61C1F 2MS V124E48V19R15X29	10.000	.000	25.000	.000	XREF 1076.4800 INCHES
[AF8050]	0A119A B61C1F 2MS V124E48V19R15X29	15.000	.000	25.000	.000	YREF 375.0000 INCHES
[AF8048]	0A119A B61C1F 2MS V124E51V19R15X29	15.000	.000	25.000	.000	ZREF .0405 SCALE

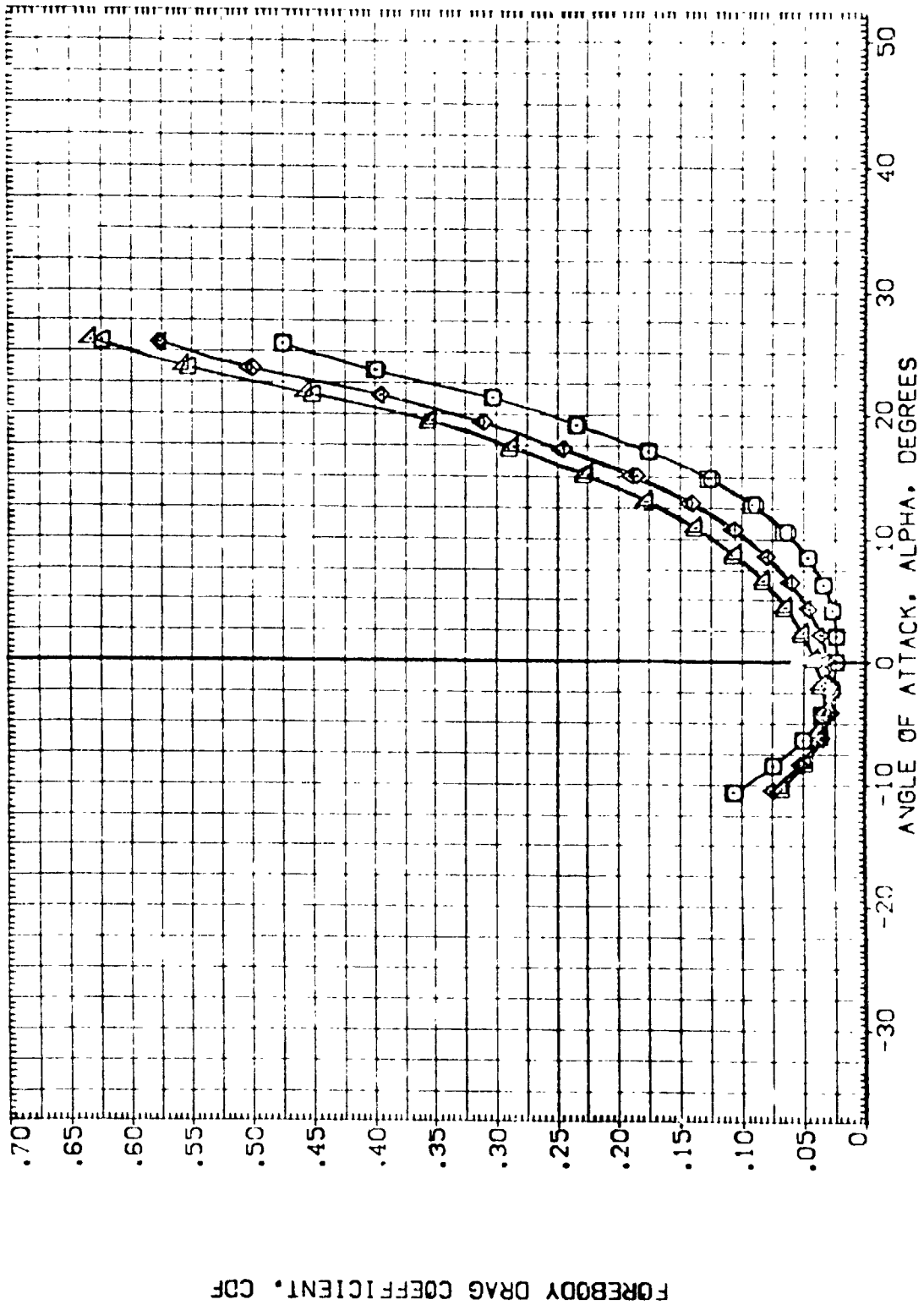


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, 10, 15
 (A)MACH = .26 PAGE 145

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AIRLON	REFERENCE INFORMATION
(AF8004)	GA119A B61C1F 2M5 V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8042)	GA119A B61C1F 2M5 V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8024)	GA119A B61C1F 2M5 V124E48V19R15X29	.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8037)	GA119A B61C1F 2M5 V124E48V19R15X29	10.000	.000	25.000	.000	XMRP 1076.4800 INCHES
(AF8050)	GA119A B61C1F 2M5 V124E48V19R15X29	15.000	.000	25.000	.000	YMRP 375.0000 INCHES
(AF8048)	GA119A B61C1F 2M5 V124E51V19R15X29	15.000	.000	25.000	.000	ZMRP 375.0000 INCHES
						SCALE .0405

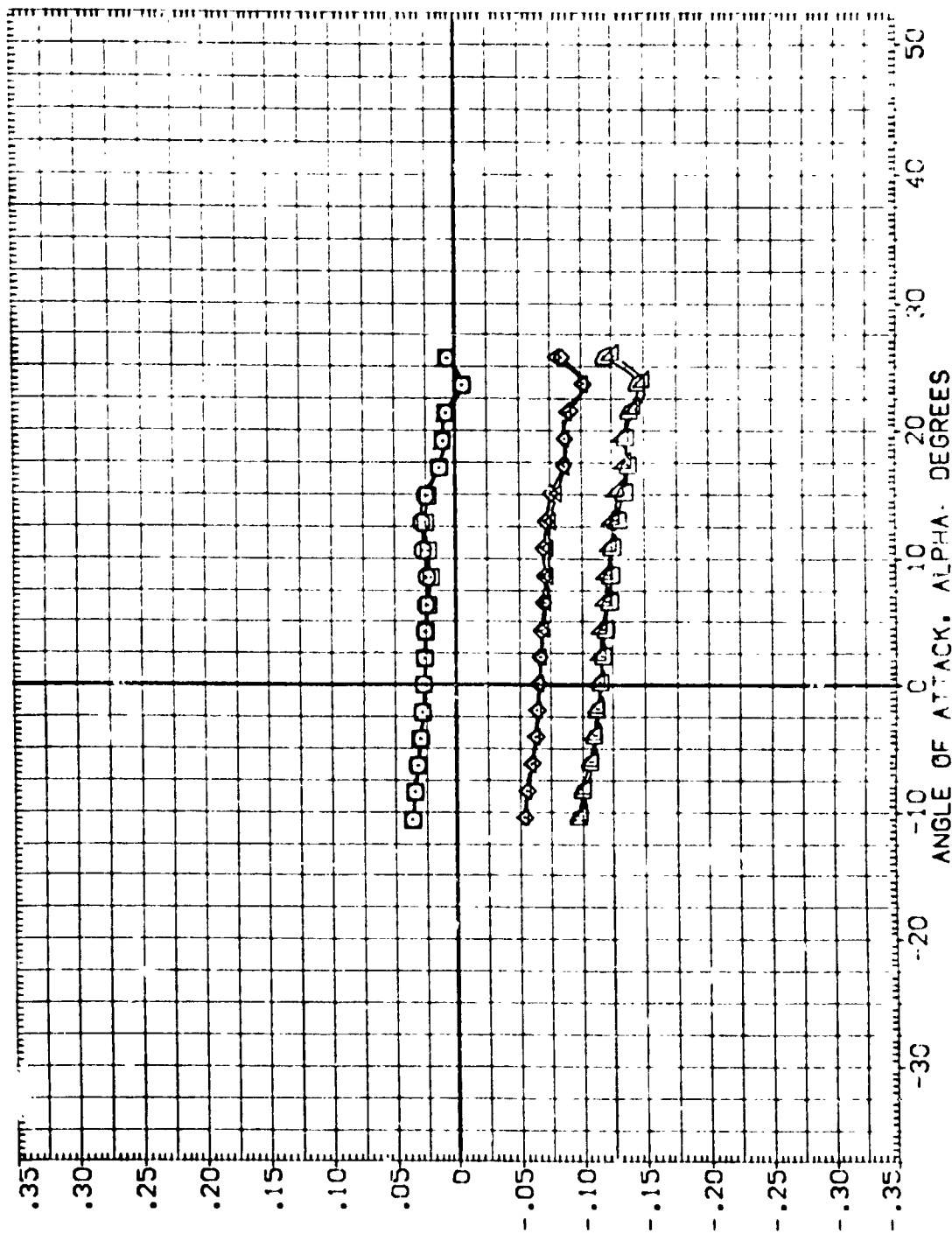


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS. ELEVON = 0, 10, 15
(A)MACH = .26 PAGE 146

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRN	AILRON	REFERENCE INFORMATION
(AF8004)	CA119A B61C F12-S1V 24E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8042)	CA119A B61C F12-S1V 24E49V19R15X29	.000	.000	25.000	.000	LREF 474.81C3 NC-FES
(AF8024)	CA119A B61C F12-S1V 24E48V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 NC-FES
(AF8037)	CA119A B61C F12-S1V 24E48V19R15X29	10.000	.000	25.000	.000	XREF 1076.4800 NC-FES
(AF8050)	CA119A B61C F12-S1V 24E48V19R15X29	15.000	.000	25.000	.000	YREF 375.0000 NC-FES
(AF8048)	CA119A B61C F12-S1V 24E48V19R15X29	15.000	.000	25.000	.000	ZREF 375.0000 NC-FES
						SCALE .04CS

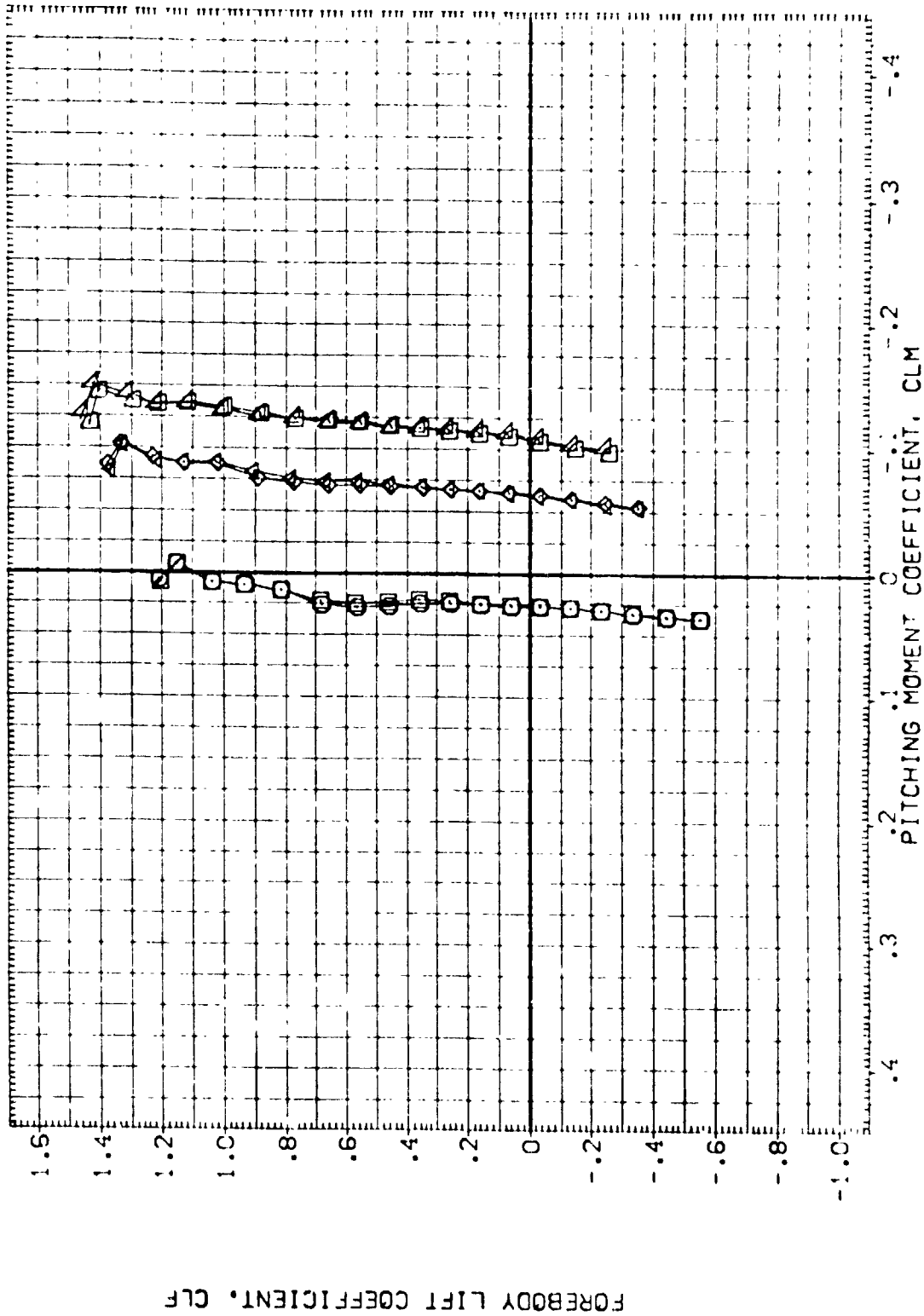


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS. ELEVON = 0. 10. 15

(A) MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRBK	AIRLON	REFERENCE INFORMATION
(AF8004)	CA119A B6 C11F 2-5 V124E18V 9R15X29	.000	.000	25.000	.000	SREF 2690.0100 SO-FT
(AF8002)	CA119A B6 C11F 2-5 V124E18V 9R15X29	.000	.000	25.000	.000	LREF 174.8100 IN-ES
(AF8024)	CA119A B6 C11F 2-5 V124E18V 9R15X29	.000	.000	25.000	.000	BREF 936.8800 IN-ES
(AF8037)	CA119A B6 C11F 2-5 V124E18V 9R15X29	.000	.000	25.000	.000	XPRP 1076.4800 IN-ES
(AF8050)	CA119A B6 C11F 2-5 V124E18V 9R15X29	.000	.000	25.000	.000	YPRP .0000 IN-ES
(AF8048)	CA119A B6 C11F 2-5 V124E18V 9R15X29	.000	.000	25.000	.000	ZPRP 375.0700 IN-ES
					SCALE	SCALE

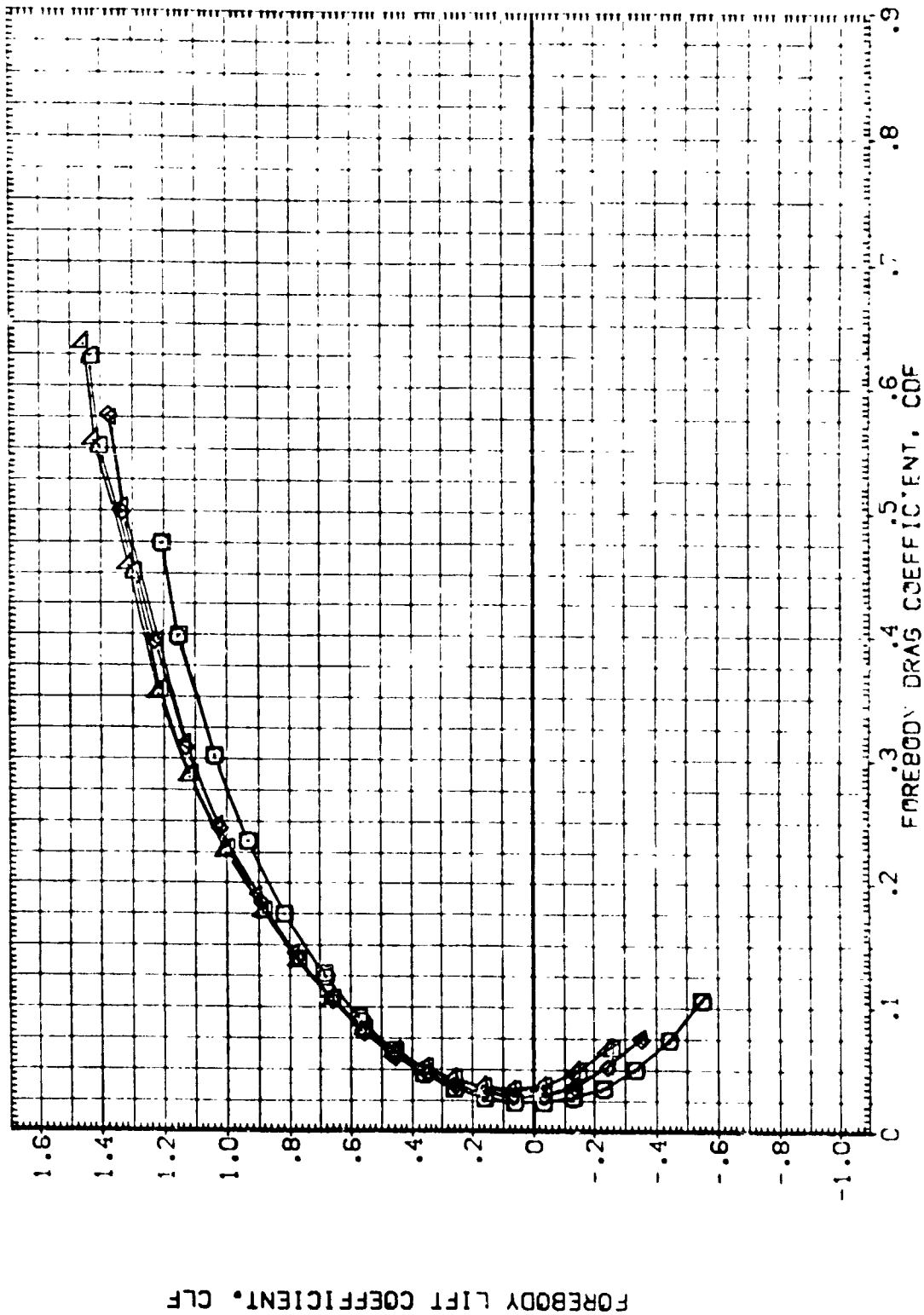


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, 10, 15
 (A)MACH = .26 PAGE 148

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	S ² OSBK	AILRON	REFERENCE INFORMATION
{AF8004}	0A 18A 00C 1F 2-3 V 24E48V 1SR 15X23	.000	.000	23.000	.000	SRF 2890.0100 50. FT.
{AF8042}	0A 18A 00C 1F 2-3 V 24E48V 1SR 15X23	.000	.000	23.000	.000	LRF 474.6100 NCLES
{AF8024}	0A 18A 00C 1F 2-3 V 24E48V 1SR 15X23	.000	.000	23.000	.000	BRF 936.6900 NCLES
{AF8037}	0A 18A 00C 1F 2-3 V 24E48V 1SR 15X23	.000	.000	23.000	.000	XPR 1076.4800 NCLES
{AF8050}	0A 18A 00C 1F 2-3 V 24E48V 1SR 15X23	.000	.000	23.000	.000	ZPR 375.0000 NCLES
{AF8048}	0A 18A 00C 1F 2-3 V 24E48V 1SR 15X23	.000	.000	23.000	.000	SCALE .0400 NCLES

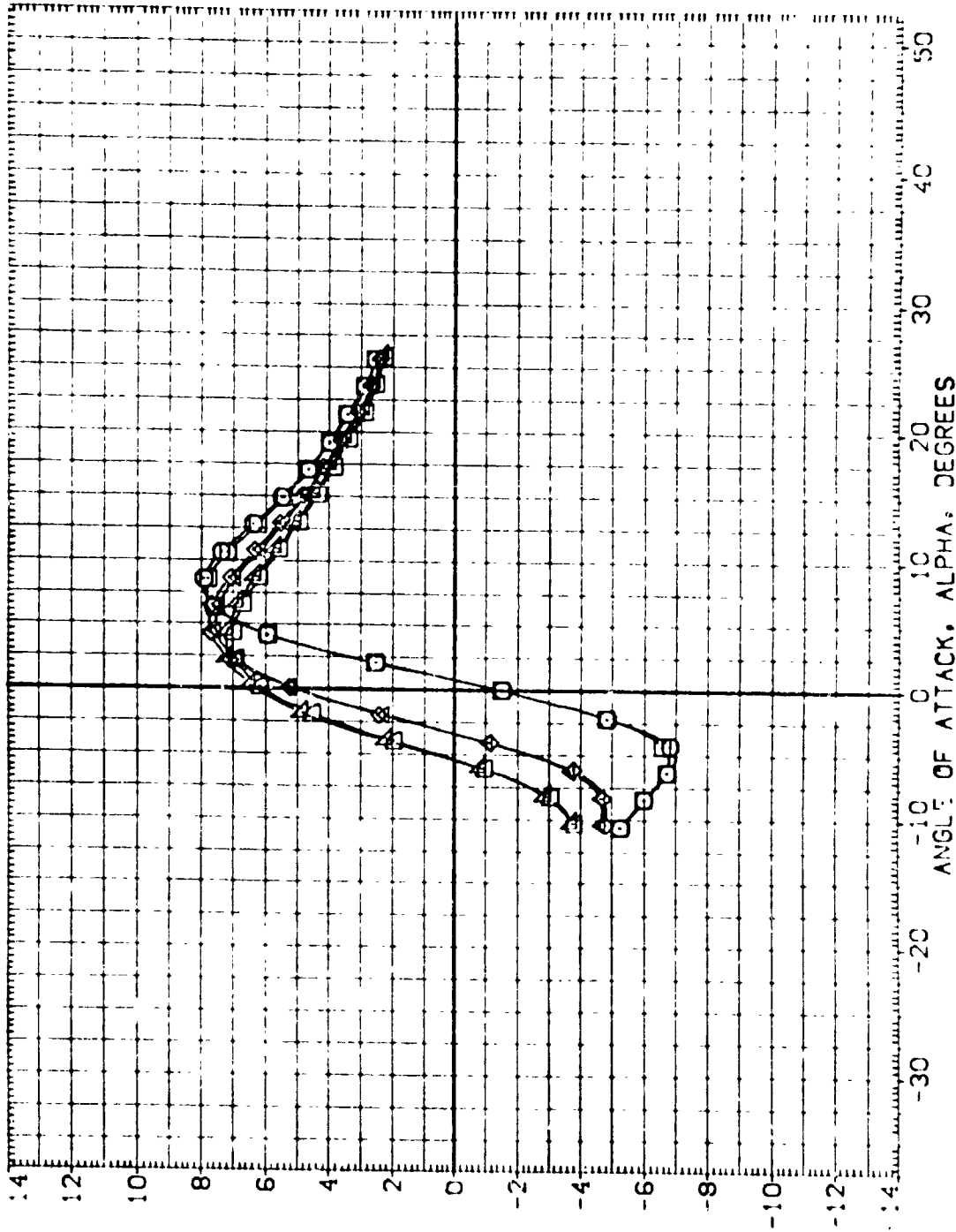


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, 10, 15

(A)MACH = .26

DATA SET #	CONFIGURATION DESCRIPTION	ELEVON	BD/LAP	SPDRM	AIRLON	REFERENCE INFORMATION
[AF8004]	CA11SA BB C11F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	SREF 70.0100 50.0100
[AF8012]	CA11SA BB C11F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	LREF 74.8100 100.000
[AF8024]	CA11SA BB C11F 2-5 V124E48V19R15X29	10.000	.000	25.000	.000	BREF 936.6800 100.000
[AF8037]	CA11SA BB C11F 2-5 V124E48V19R15X29	10.000	.000	25.000	.000	XPRP 1076.4800 100.000
[AF8050]	CA11SA BB C11F 2-5 V124E48V19R15X29	15.000	.000	25.000	.000	YPRP 375.0000 100.000
[AF8048]	CA11SA BB C11F 2-5 V124E48V19R15X29	15.000	.000	25.000	.000	ZPRP 375.0000 100.000
						SCALE .0105

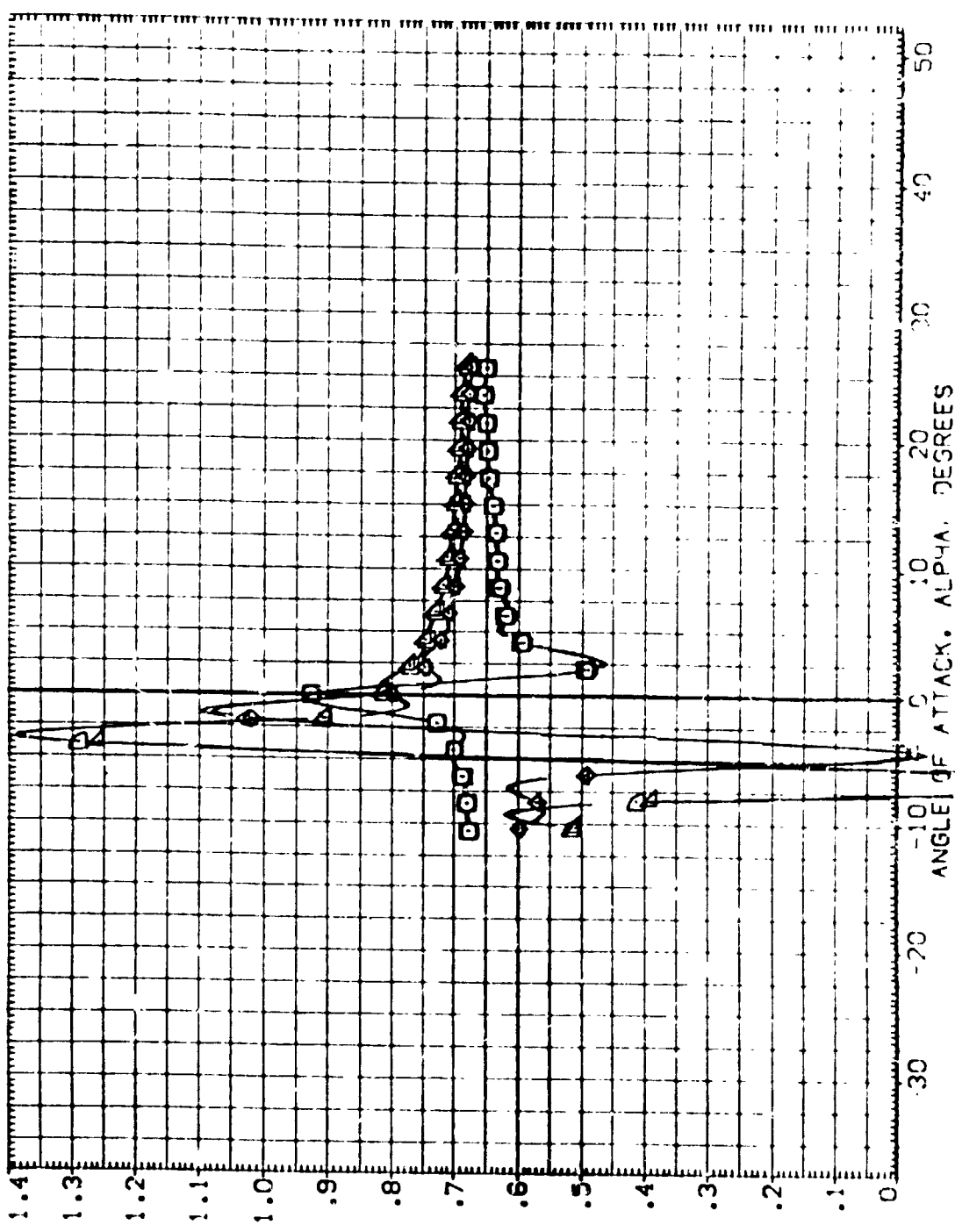


FIG 18 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS. ELEVON = 0, 10, 15
 (A)MACH - .26
 PAGE 150

DATA SET SYMBOL: (AF8052) (AF8054)
 CONFIGURATION DESCRIPTION: 0A119A 86:11F12051V124E48V19915X29
 0A119A 86:11F12051V124E51V19915X29

ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
20.000	.000	25.000	.000	LREF 474.8100 INCHES
				BREF 936.6800 INCHES
				XMRP 1076.1800 INCHES
				YMRP .0000 INCHES
				ZMRP 375.0000 INCHES
				SCALE .0405

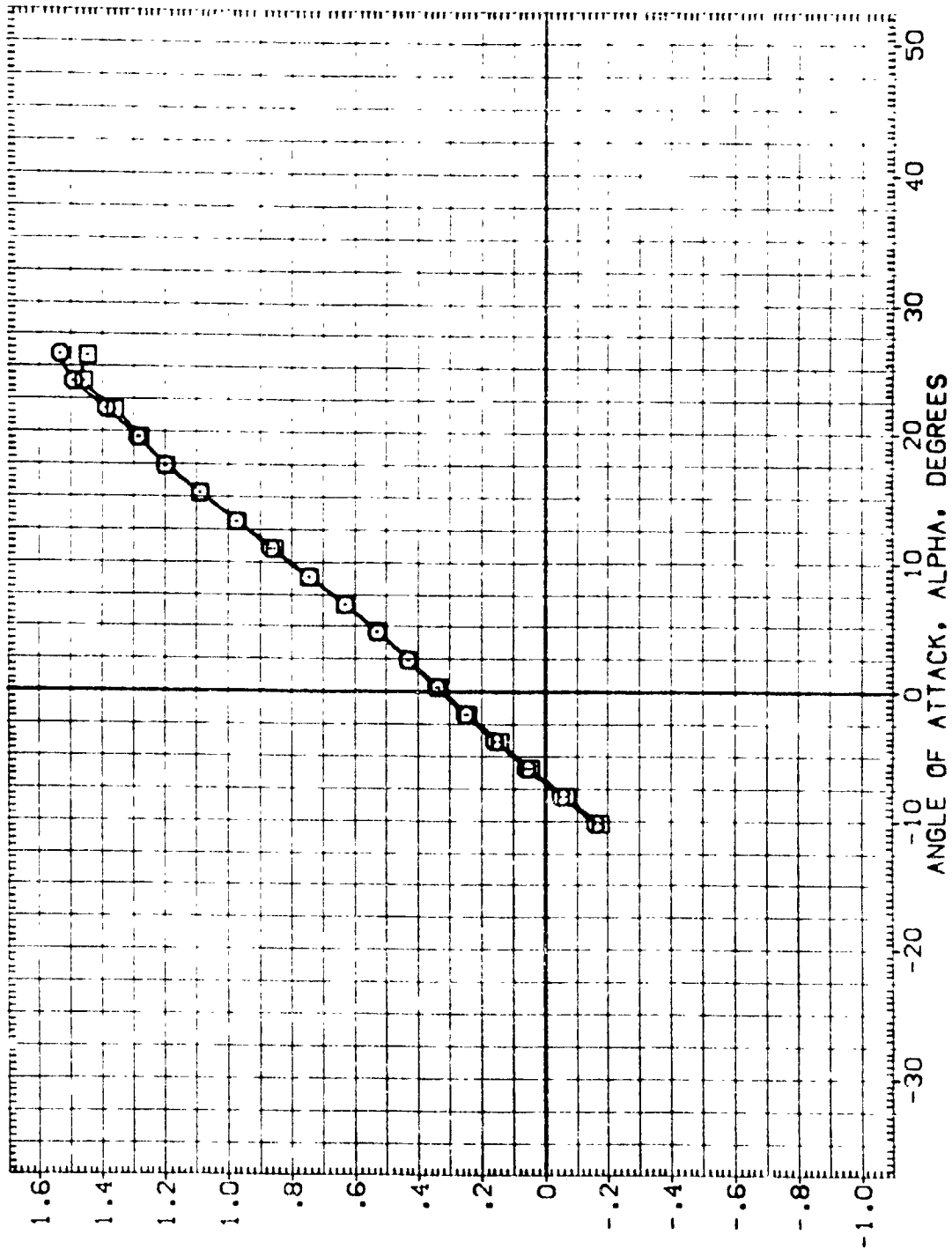


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
{AF8052}	0A119A 881C11F12-31V124E48V18R15X23	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT
{AF8054}	0A119A 881C11F12-31V124E51V18R15X28	20.000	.000	25.000	.000	LREF 474.8100 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405 INCHES

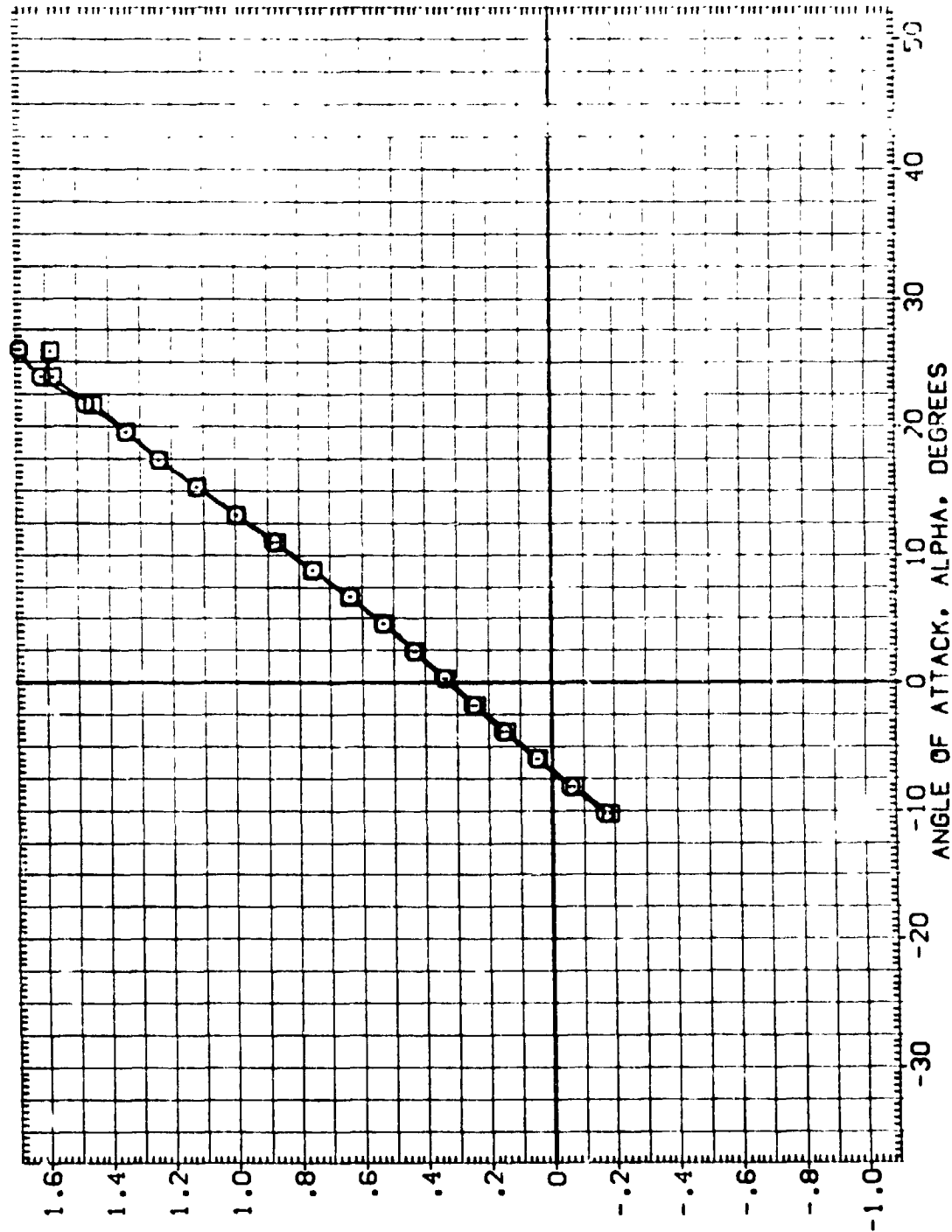


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON - 20 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	80FLAP	SPOILER	AILERON	REFERENCE INFORMATION
(AF8052)	0A119A 861C11F12451V124E48V19R15X29	20.000	.000	25.000	.000	SREF 2690.3100 50.FT
(AF8054)	0A119A 861C11F12451V124E51V19R15X29	20.000	.000	25.000	.000	LREF 474.8100 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0405

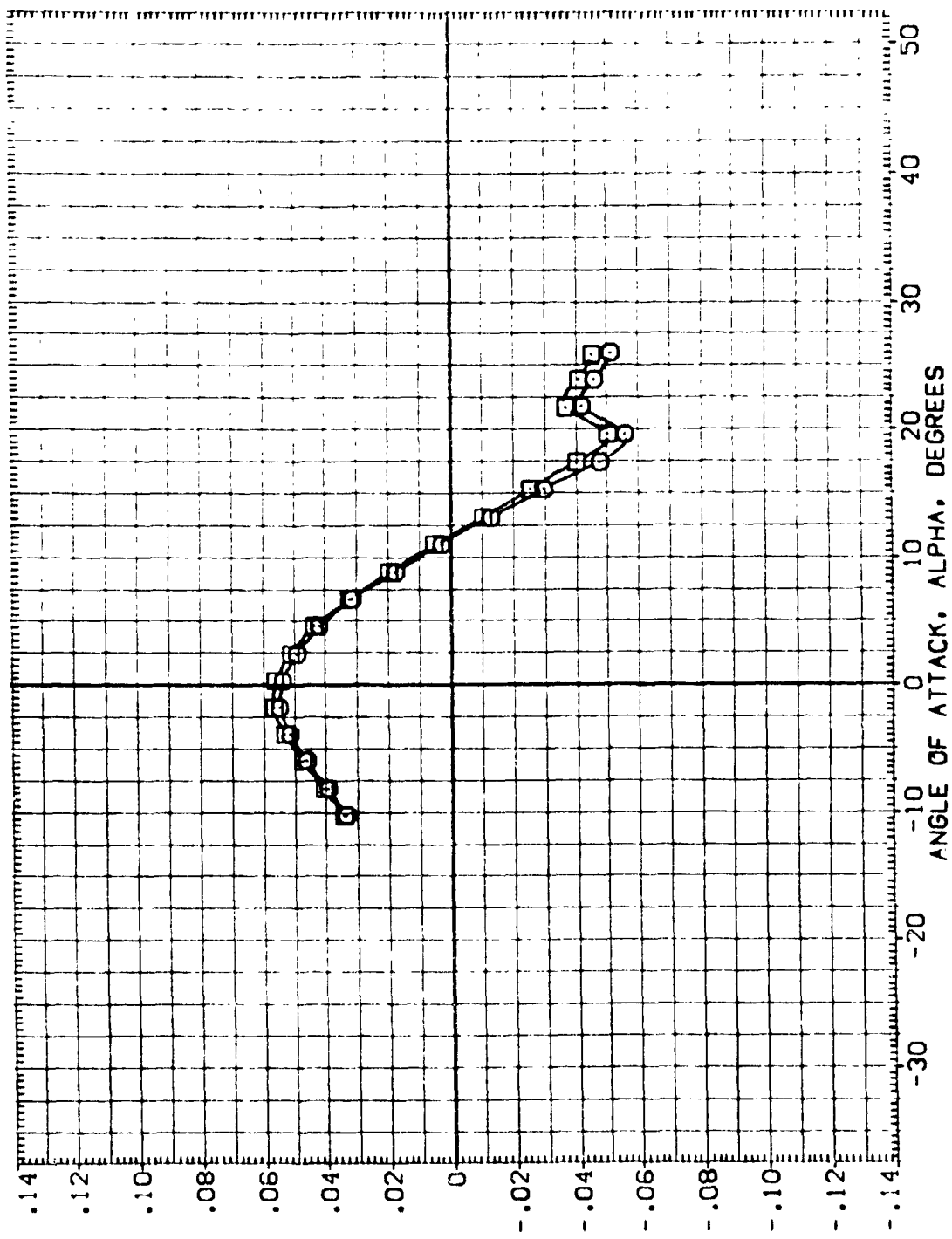


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG
 (A)MACH = .26 PAGE 153

DATA SET SYMBOL: 01119A
 CONFIGURATION DESCRIPTION: 01119A 001C11F1251V124E40V19R13X29
 01119A 001C11F1251V124E31V19R13X29

ELEVON: 20.000
 ID: 0.000
 SP: 25.000
 AIR: 0.000

REFERENCE INFORMATION:
 SREF: 2690.0100 90.000
 LREF: 474.8100 10.000
 PREF: 936.6600 10.000
 YMRP: 1076.4800 10.000
 ZMRP: 375.0000 10.000
 SCALE: .0405

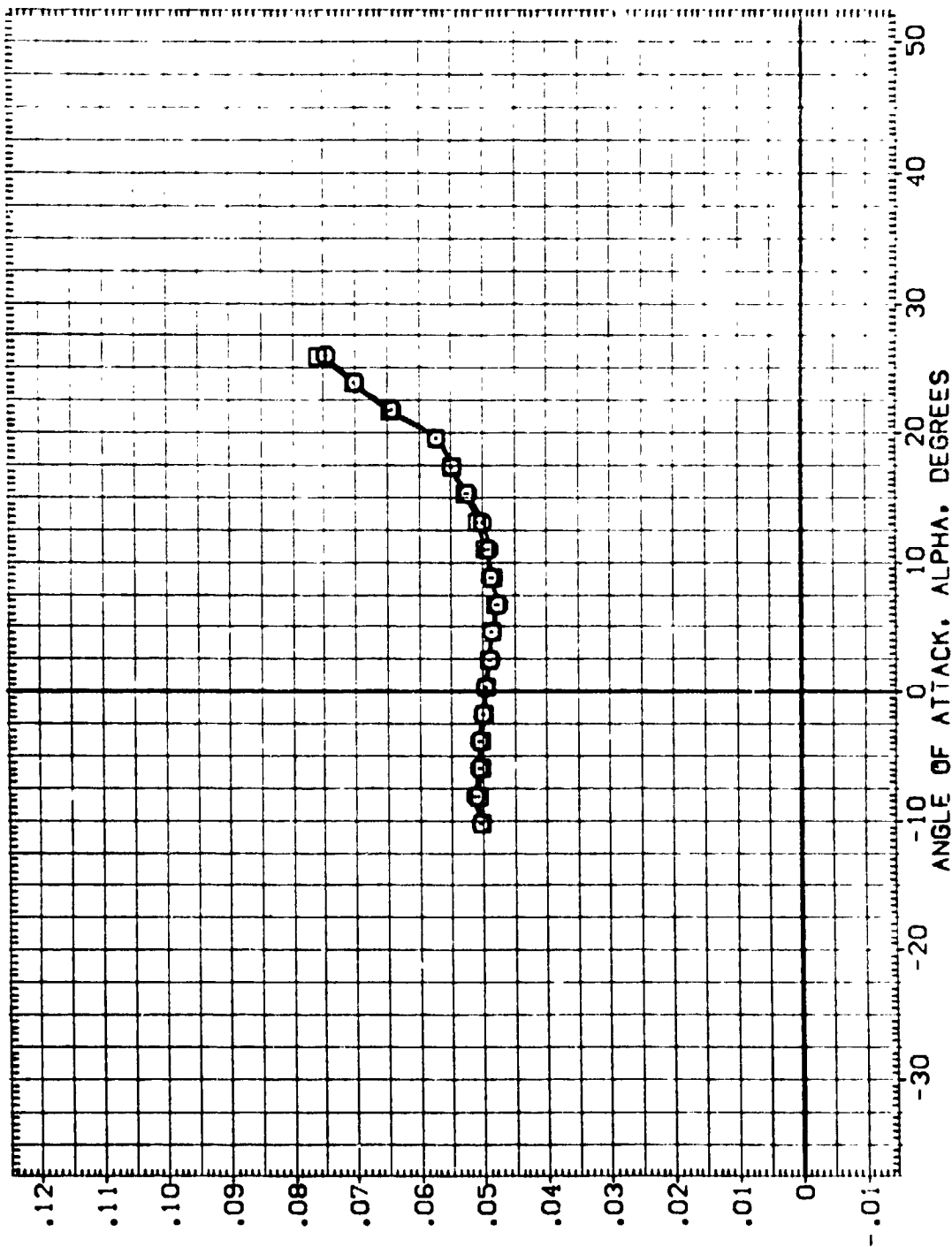


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8052)	0A119A B61C1F12H51V124E48V1SR15X29	20.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8054)	0A119A B61C1F12H51V124E51V1SR15X29	20.000	.000	25.000	.000	LREF 474.8100 INCHES
						BREF 936.8800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405 INCHES

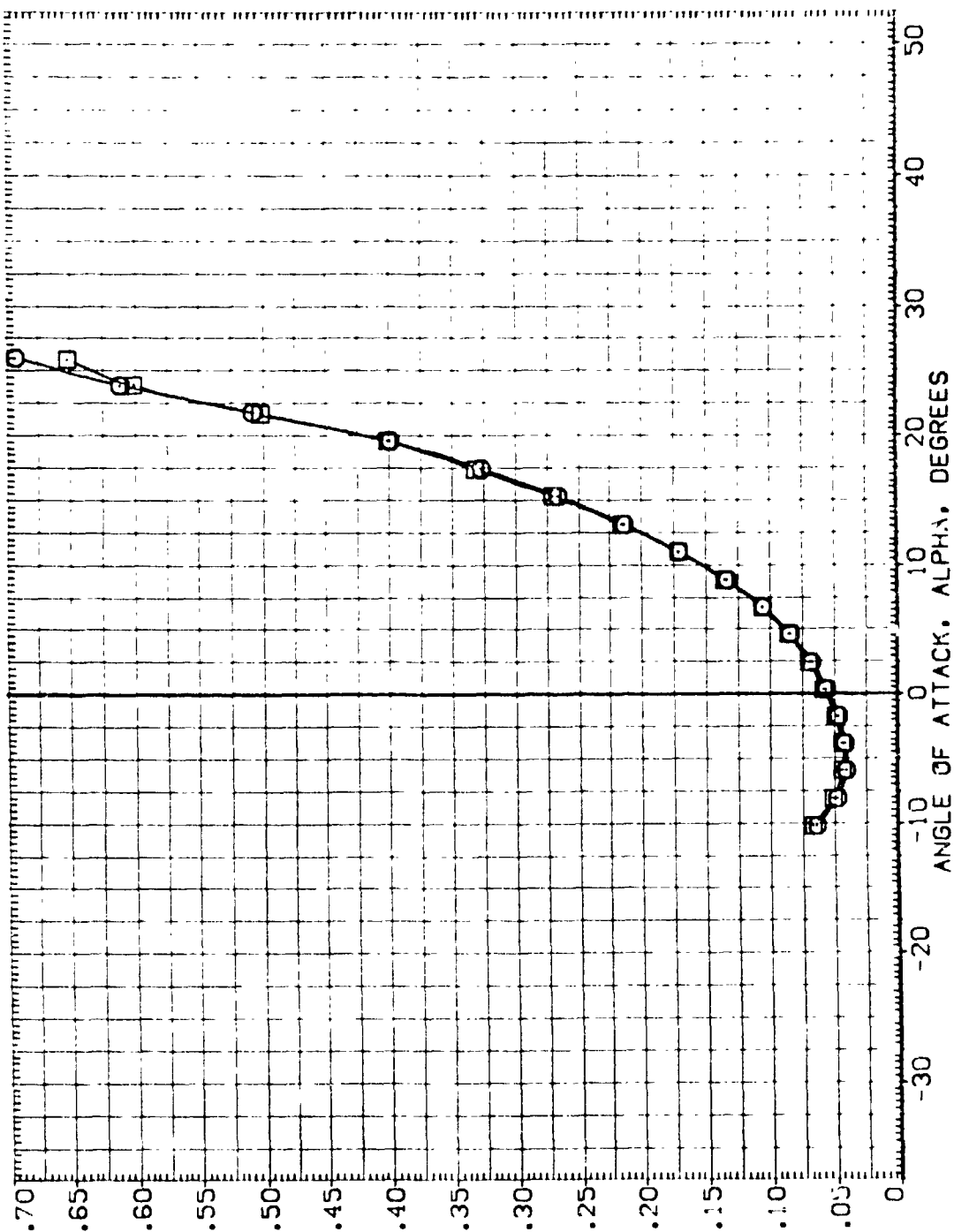


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26



DATA SET SYMBOL: 8
{AF8052}
{AF8054}

CONFIGURATION DESCRIPTION:
0A119A 881C11F12751V124E49V19915X29
0A119A 881C11F12751V124E51V19915X29

ELEVON: 20.000
20.000

BDF LAP: .000
.000

SP03BK: 25.000
25.000

A1LRON: .000
.000

REFERENCE INFORMATION:
SREF: 2690.0100 SQ. FT.
LREF: 474.8100 INCHES
BREF: 936.6800 INCHES
XMRP: 1076.1800 INCHES
YMRP: .0000 INCHES
ZMRP: 375.0000 INCHES
SCALE: .0405

PITCHING MOMENT COEFFICIENT, CLM

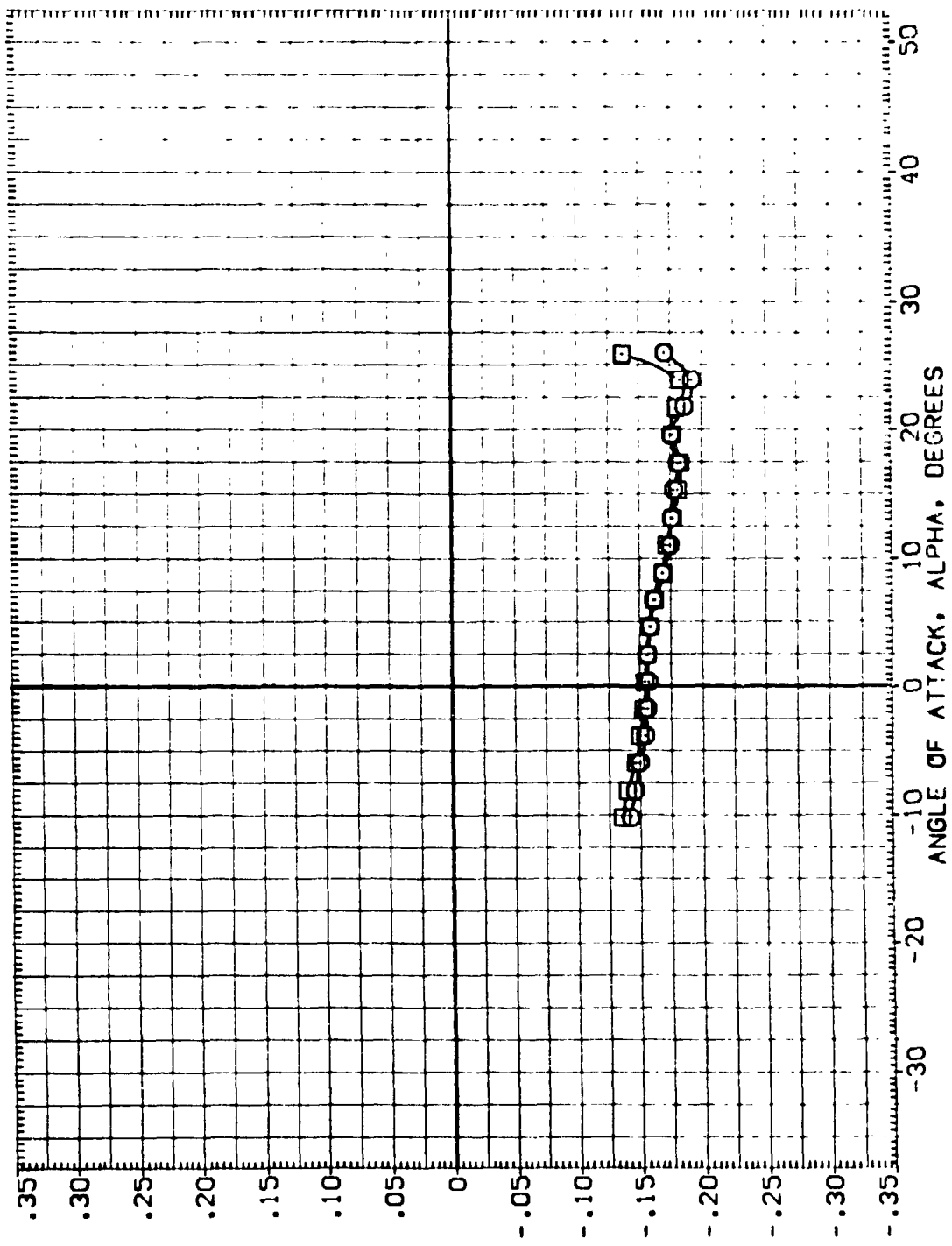


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26



DATA SET SYMBOL: 8
[AF8052]
[AF8054]

CONFIGURATION DESCRIPTION:
0A119A 861C11F12M51V124E48V19R15X29
0A119A 861C11F12M51V124E51V19R15X29

ELEVON: 20.000
20.000
20.000

BOFLAP: .000
.000
.000

SPDBRK: 25.000
25.000
25.000

AILRON: .000
.000
.000

REFERENCE IN QUANTITIES:
SREF: 2690.0100 SQ.FT
LREF: 474.8100 INCHES
BREF: 836.6800 INCHES
XMRP: 1076.4800 INCHES
YMRP: .0000 INCHES
ZMRP: 375.0000 INCHES
SCALE: .0405

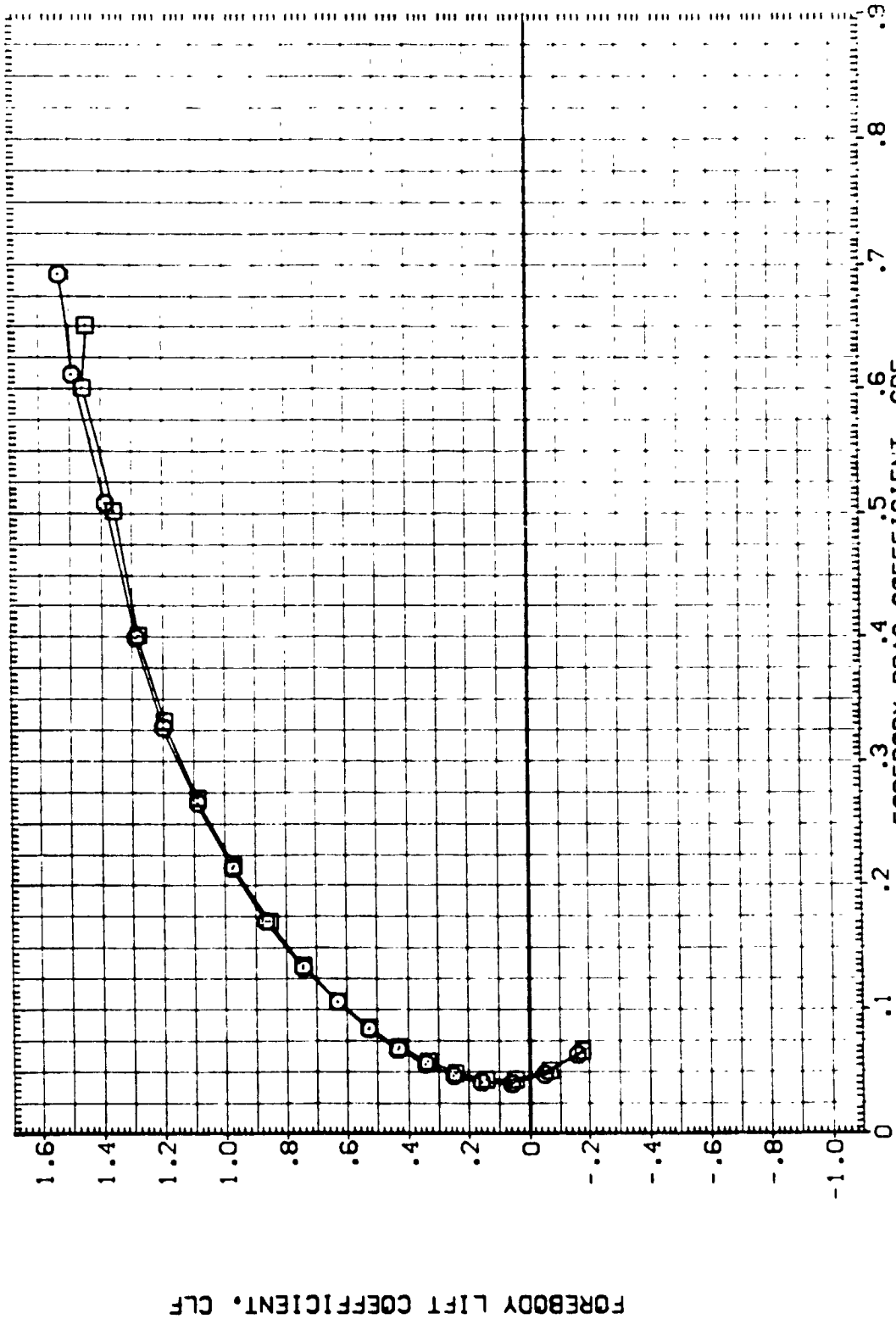


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG
[A]MACH = .26

LIFT/FOREBODY DRAG RATIO, L/DF

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION SCALE

AF8052	0A119A B611F12V51W24E48V19R15X29	SREF 2690 0.00	SCALE 1.00
AF8054	0A119A B611F12V51W24E51V19R15X25	LREF 474.8 0.00	SCALE 1.00
		BREF 936.6800	SCALE 1.00
		XMRP 1076.4800	SCALE 1.00
		YMRP 0.0000	SCALE 1.00
		ZMRP 0.0000	SCALE 1.00
		SCALE 0.0405	SCALE 1.00

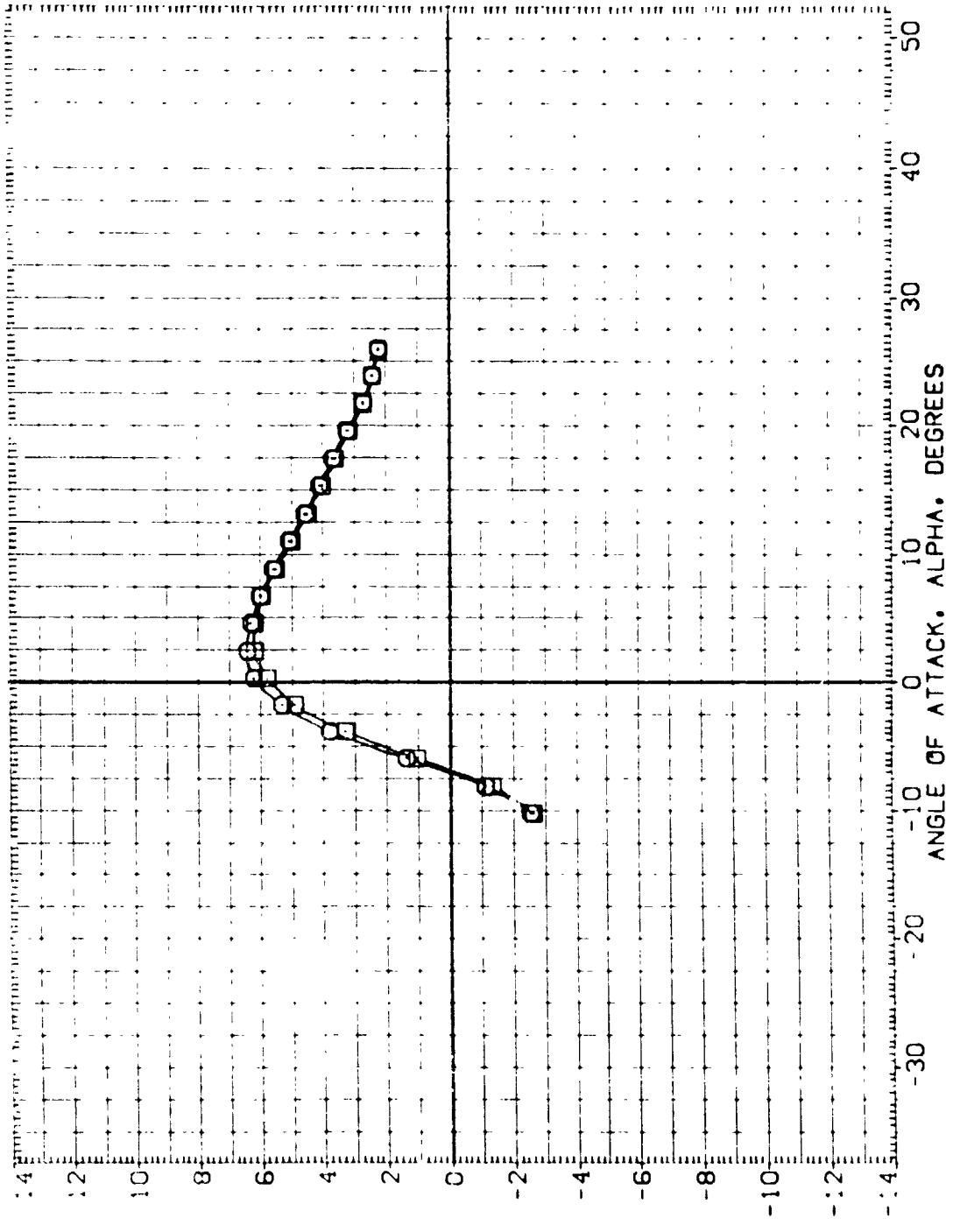


FIG 19 EFFECT OF *ING/ELEVON GAP ON ELEVON EFFECTIVENESS. ELEVON = 20 DEG
(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (AF 8052) 0119A 861C11F12761V124E48V1SR15X23
 (AF 8054) 0119A 861C11F12761V124E51V1SR15X26

ELEVON 803 LA3 SPDBK AILRON
 20.000 .000 25.000 .000
 20.000 .000 25.000 .000
 REFERENCE INFORMATION
 SREF 2650.0100 50.000 INCHES
 LREF 474.8100 INCHES
 BREF 936.8800 INCHES
 XREF 1076.4800 INCHES
 YREF .0000 INCHES
 ZREF .0000 INCHES
 SCALE 375.0000 INCHES
 SCALE .0405

LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L

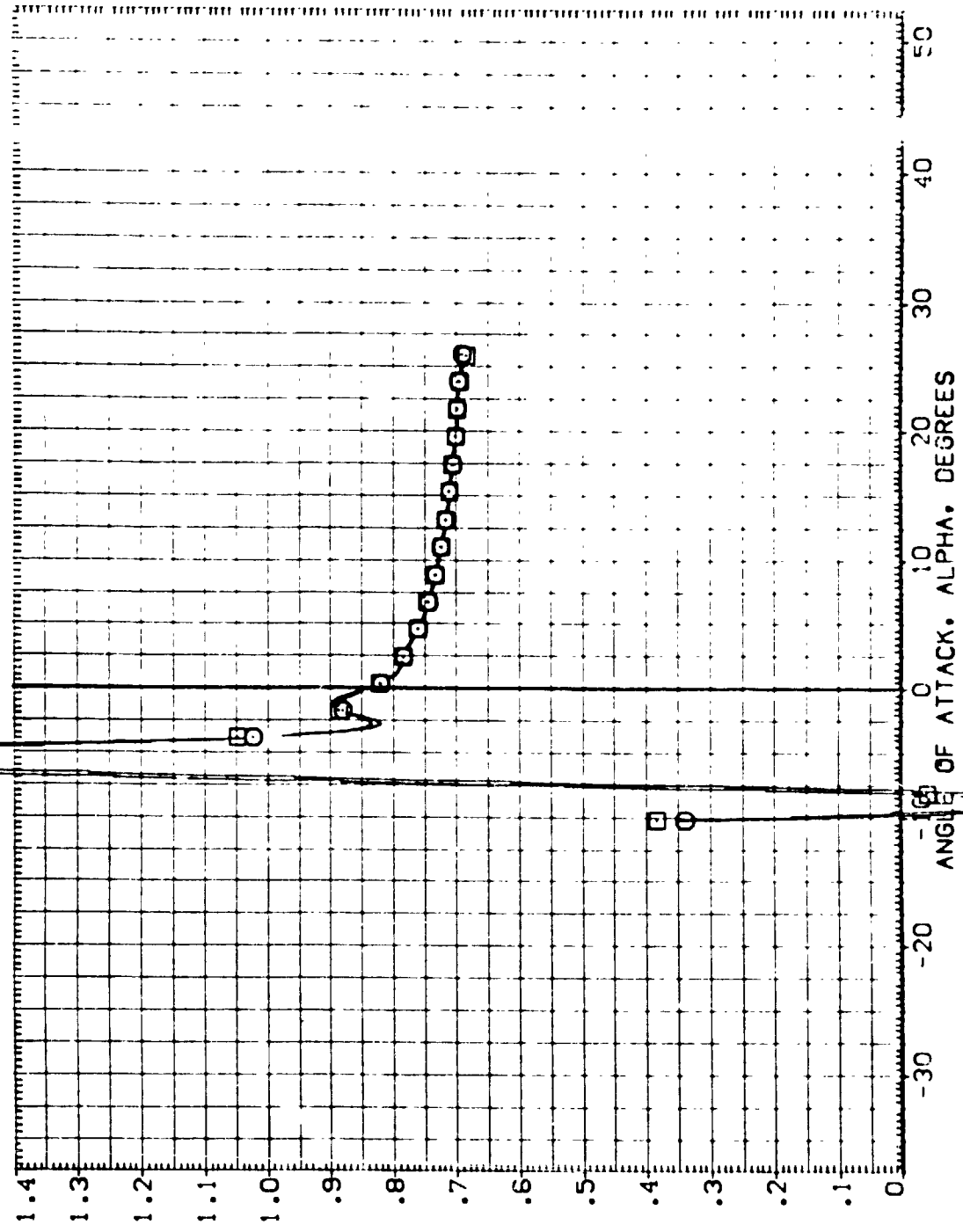


FIG 19 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 20 DEG

(A)MACH = .26 PAGE 160



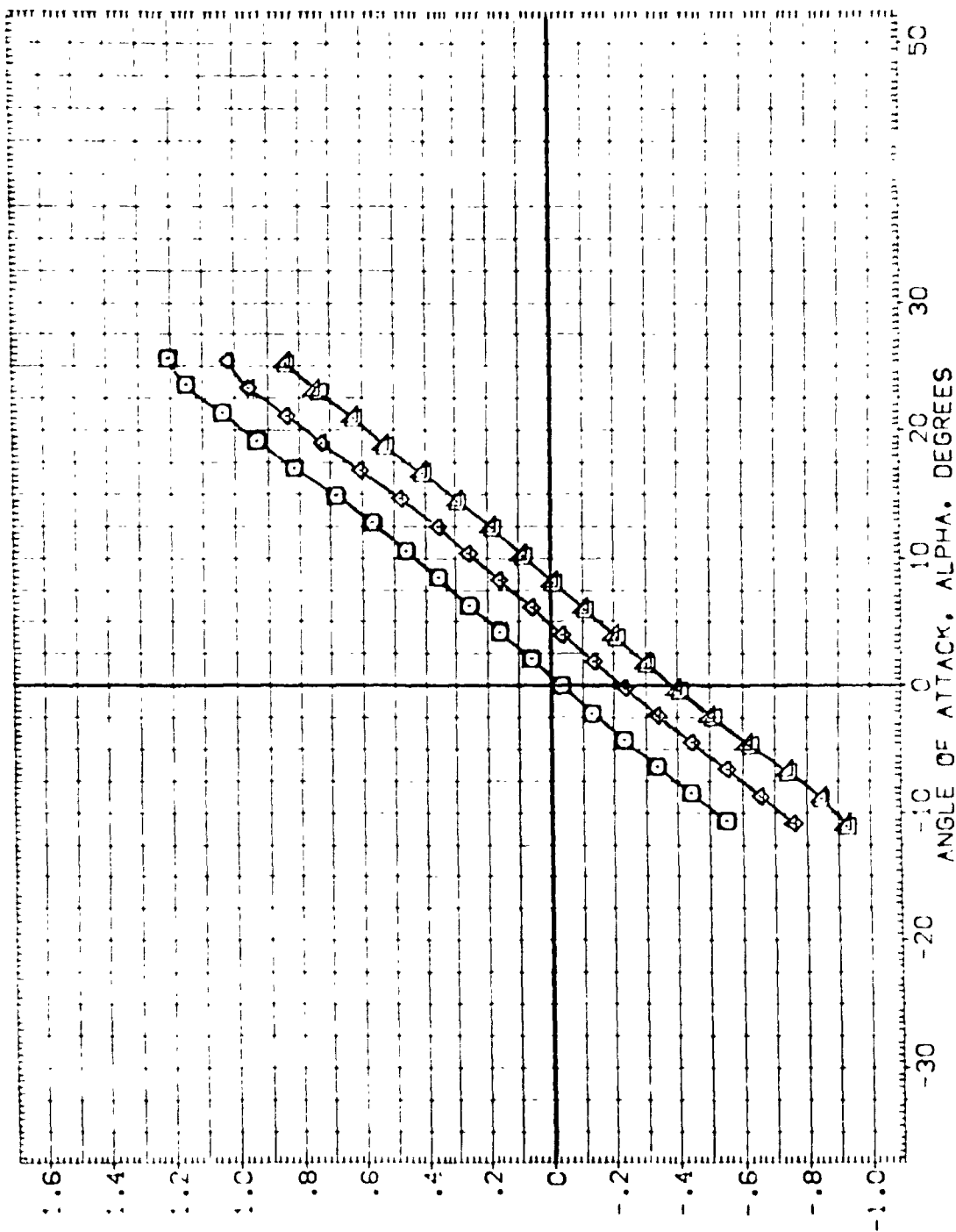
[illegible]

FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, $ELE_{\text{EFF}}^{\text{WING}}$, .0, -20

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
[AF8004]	CA119A B61C1F124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8042]	CA119A B61C1F124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 NCES
[AF8027]	CA119A B61C1F124E48V19R15X29	-10.000	.000	25.000	.000	BREF 936.6800 NCES
[AF8043]	CA119A B61C1F124E48V19R15X29	-10.000	.000	25.000	.000	XMRP 1076.4800 NCES
[AF8016]	CA119A B61C1F124E48V19R15X29	-20.000	.000	25.000	.000	YMRP .0000 NCES
[AF8047]	CA119A B61C1F124E48V19R15X29	-20.000	.000	25.000	.000	ZMRP 375.0000 NCES
						SCALE .0405

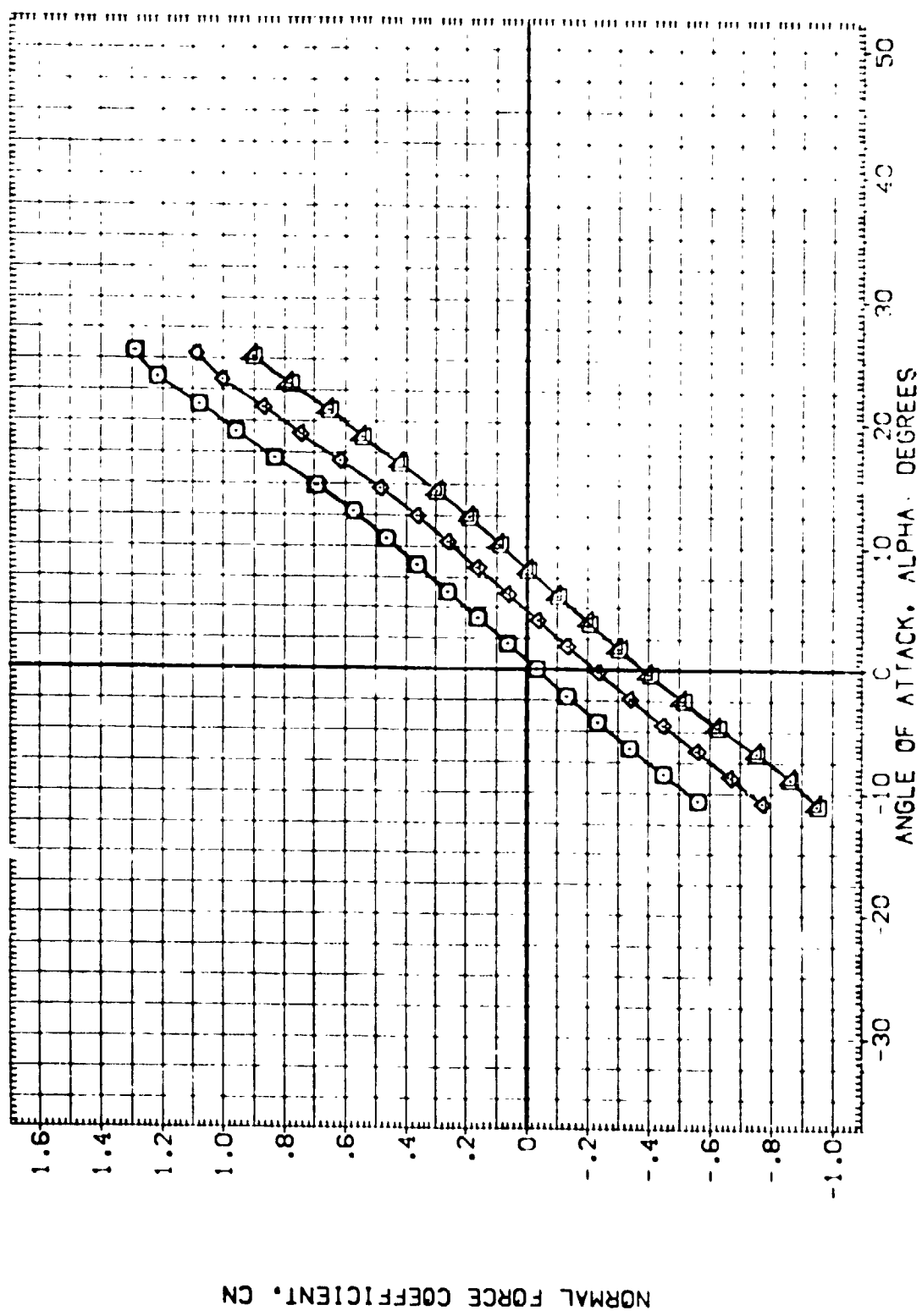


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON - 0,-10,-20
 (A)MACH = .26 PAGE 162

FOR BODY AXIAL FORCE COEFFICIENT, C_{AF}

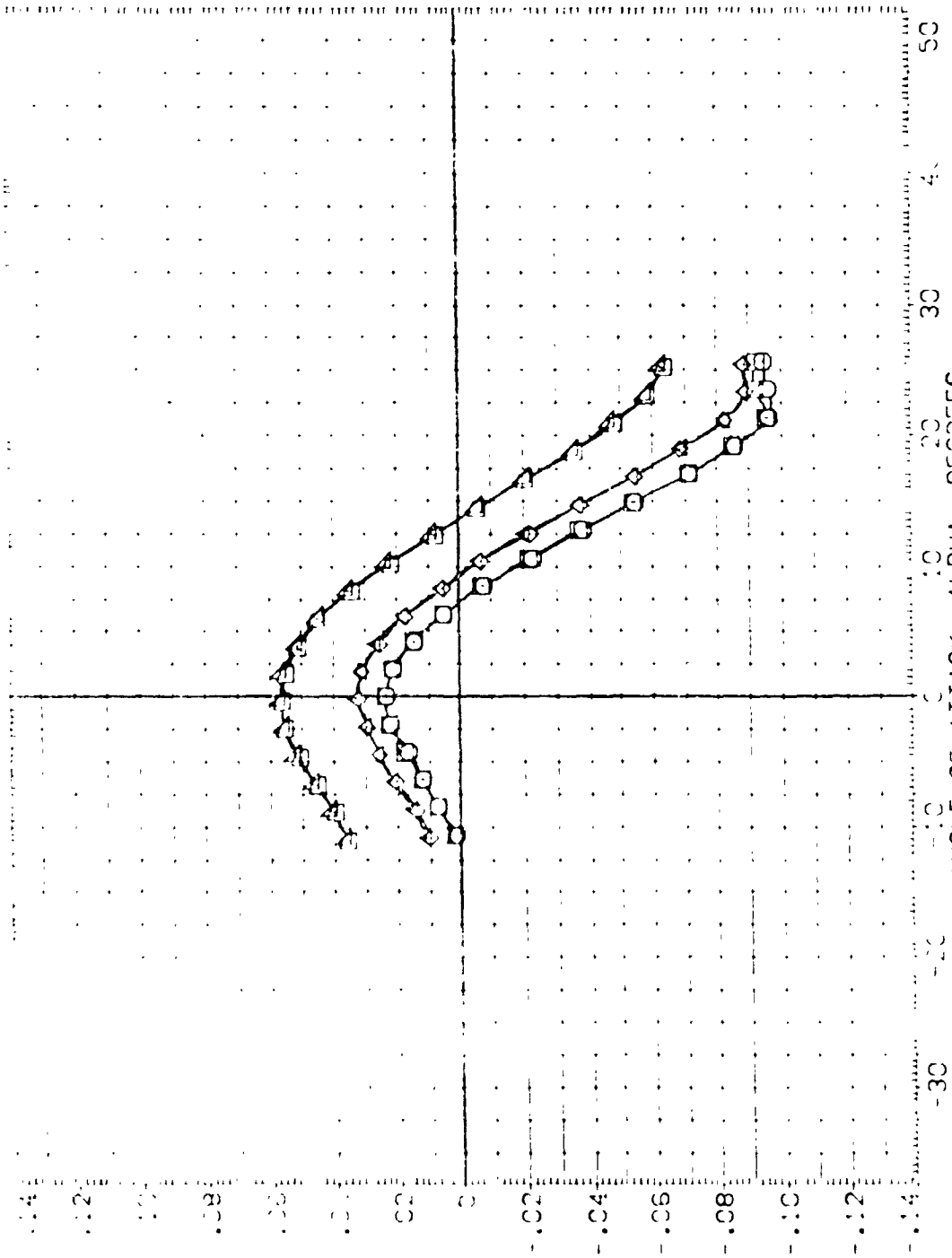


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, -10, -20



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SP0BRK	AILRON	REFERENCE INFORMATION
(AF8004)	DA119A B61C11F12V51V124E48V19R15X29	.000	.000	25.000	.000	2690.0100 SQ.FT. NO-ES
(AF8042)	DA119A B61C11F12V51V124E48V19R15X29	.000	.000	25.000	.000	474.8100 NO-ES
(AF8027)	DA119A B61C11F12V51V124E48V19R15X29	-10.000	.000	25.000	.000	936.6800 NO-ES
(AF8043)	DA119A B61C11F12V51V124E48V19R15X29	-10.000	.000	25.000	.000	1276.1800 NO-ES
(AF8016)	DA119A B61C11F12V51V124E48V19R15X29	-20.000	.000	25.000	.000	375.0000 NO-ES
(AF8047)	DA119A B61C11F12V51V124E51V19R15X29	-20.000	.000	25.000	.000	375.0000 NO-ES

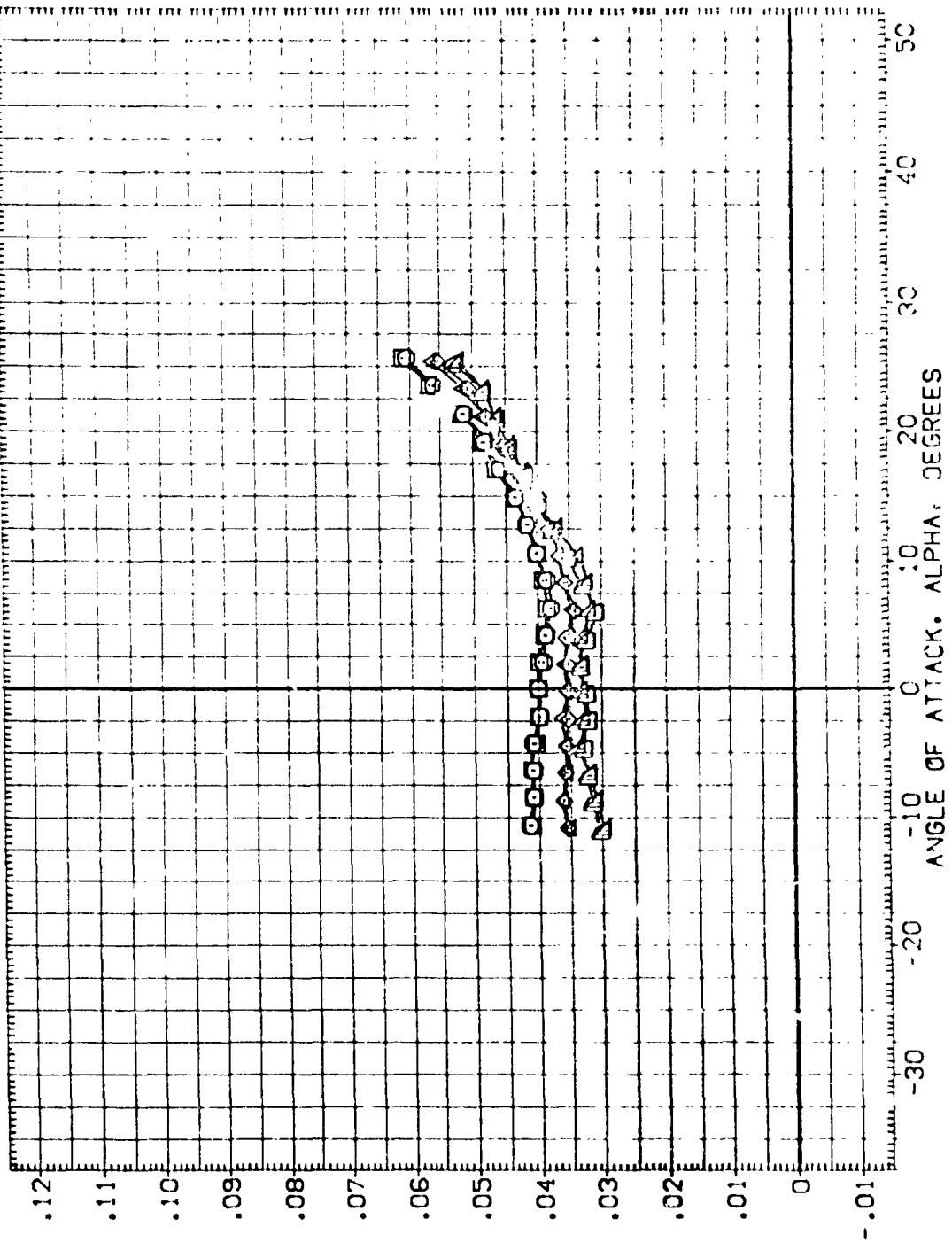


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, -10, -20
 (A)MACH = .26
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	ATLIRON	REFERENCE IN ORIENTATION	SCALE
(AF8004)	GA119A B61C11F12MS1V124E48V19R15X29	.000	.000	25.000	.000	SREF 2650.0100	50. FT.
(AF8042)	GA119A B61C11F12MS1V124E49V19R15X29	.000	.000	25.000	.000	LREF 474.8100	INCHES
(AF8027)	GA119A B61C11F12MS1V124E48V19R15X29	-10.000	.000	25.000	.000	BREF 936.6800	INCHES
(AF8043)	GA119A B61C11F12MS1V124E49V19R15X29	-10.000	.000	25.000	.000	XREF 1076.4800	INCHES
(AF8016)	GA119A B61C11F12MS1V124E48V19R15X29	-20.000	.000	25.000	.000	YREF .0000	INCHES
(AF8047)	GA119A B61C11F12MS1V124E49V19R15X29	-20.000	.000	25.000	.000	ZREF 375.0000	INCHES
						SCALE .0405	SCALE

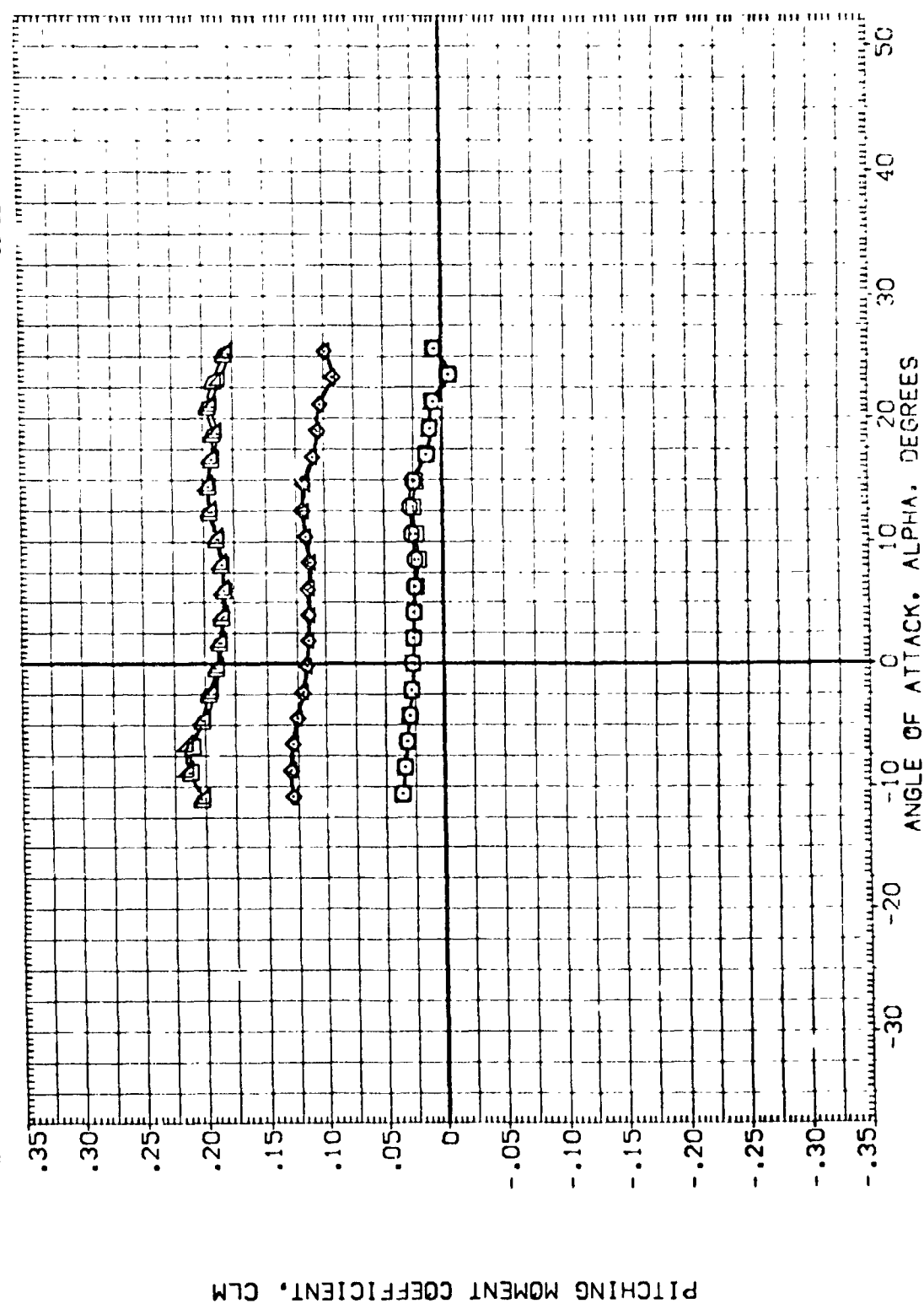


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, -10, -20
(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPADOK	AILERON	REFERENCE INFORMATION
AE8004	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	SPEE 100.0100 SQ.FT.
AE8005	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 475.8100 KCES
AE8006	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 930.8500 KCES
AE8007	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 1480.0000 KCES
AE8008	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 2000.0000 KCES
AE8009	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 2500.0000 KCES
AE8010	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 3000.0000 KCES
AE8011	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 3500.0000 KCES
AE8012	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 4000.0000 KCES
AE8013	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 4500.0000 KCES
AE8014	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 5000.0000 KCES
AE8015	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 5500.0000 KCES
AE8016	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 6000.0000 KCES
AE8017	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 6500.0000 KCES
AE8018	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 7000.0000 KCES
AE8019	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 7500.0000 KCES
AE8020	BA 100 205 245 48 199 15X 29	.000	.000	75.000	.000	WVE 8000.0000 KCES

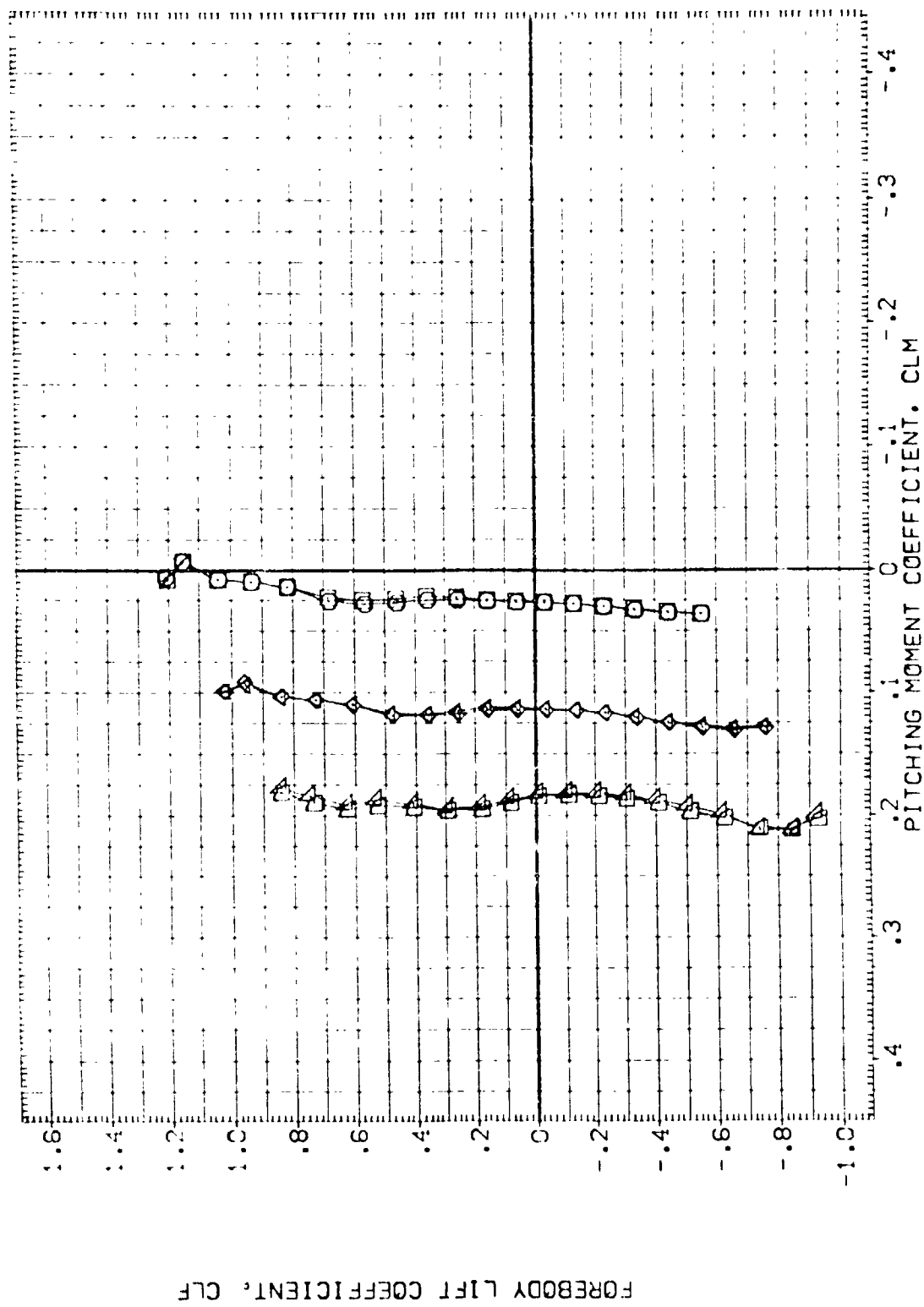


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, -10, -20
 (A)MACH = .26 PAGE 167

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRN	ATLRON	REFERENCE INFORMATION
[AF8004]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8005]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.6100 C.F.T.
[AF8006]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	BREF 936.6800 C.F.T.
[AF8007]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	XREF 576.4800 C.F.T.
[AF8008]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	YREF 375.0000 C.F.T.
[AF8009]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	ZREF 375.0000 C.F.T.
[AF8010]	GA119A B6C1F 215 V124E48V19R15X29	.000	.000	25.000	.000	SCALE .0405 SCALE

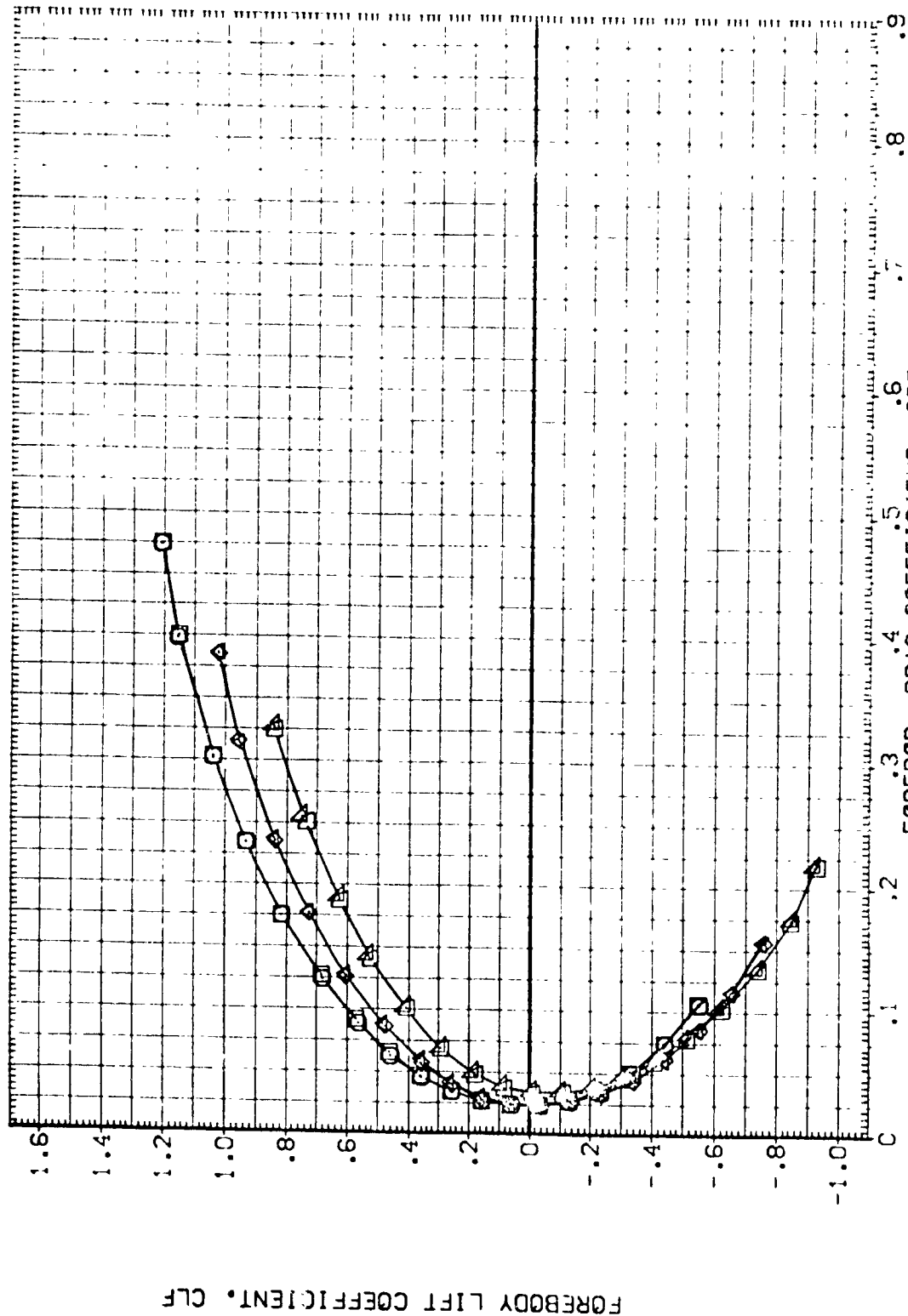


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0, -10, -20
 (A)MACH = .26 PAGE 168

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOE LAP	SPOBRK	ALLRON	REFERENCE INFORMATION
AF8004	0A119A 061011151251V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
AE8012	0A119A 061011151251V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
AE8017	0A119A 061011151251V124E48V19R15X29	.000	.000	25.000	.000	9REF 936.6800 INCHES
AE8023	0A119A 061011151251V124E48V19R15X29	-10.000	.000	25.000	.000	XREF 1076.4800 INCHES
AE8033	0A119A 061011151251V124E48V19R15X29	-10.000	.000	25.000	.000	ZREF 375.0000 INCHES
AE8038	0A119A 061011151251V124E48V19R15X29	-20.000	.000	25.000	.000	SCALE .0405

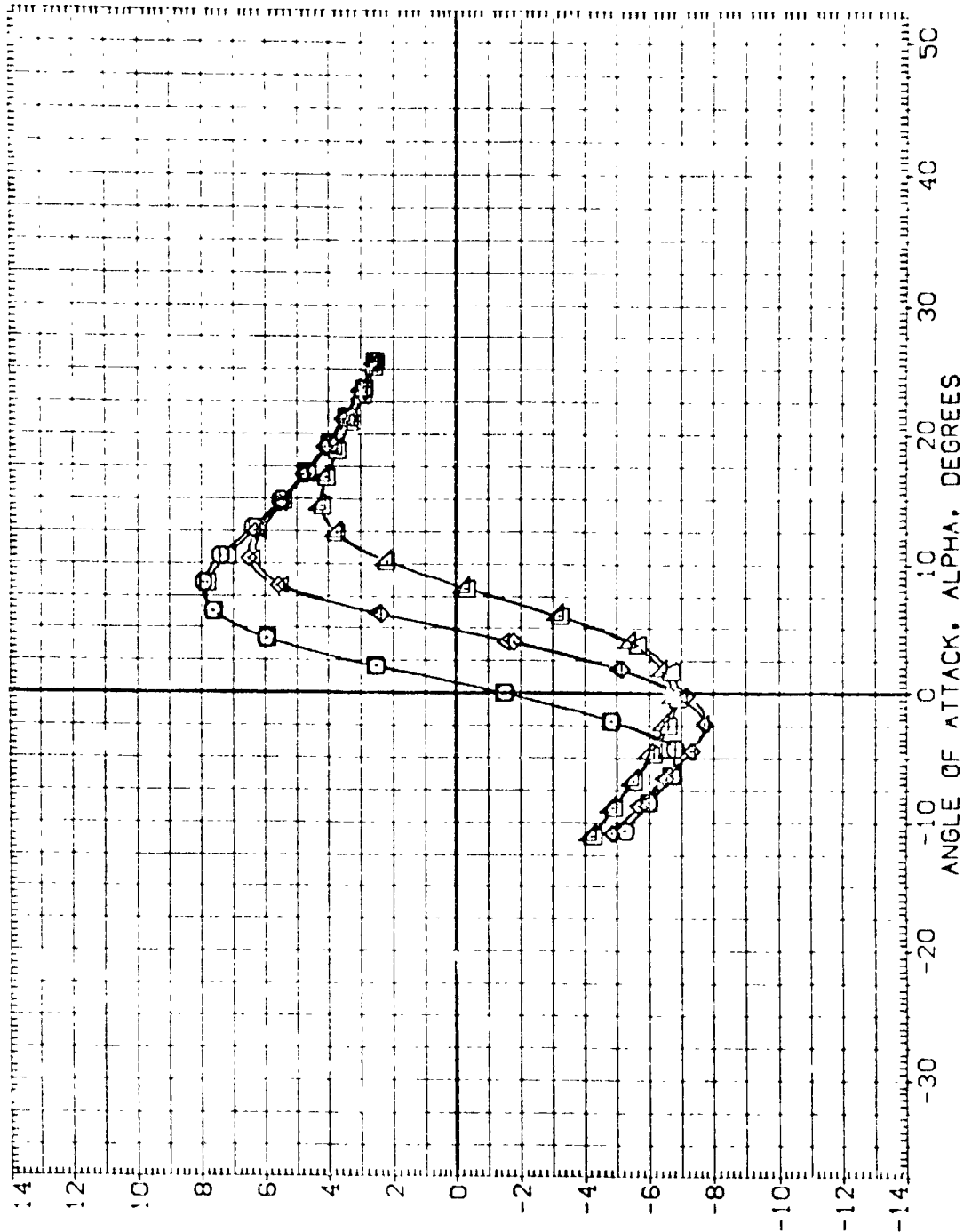


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = 0,-10,-20
 (A)MACH = .26 PAGE 169

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(AF8004)	0A119A	B61C11F12MS1V124E48V19R15X29
(AF8042)	0A119A	B61C11F12MS1V124E48V19R15X29
(AF8027)	0A119A	B61C11F12MS1V124E48V19R15X29
(AF8043)	0A119A	B61C11F12MS1V124E48V19R15X29
(AF8016)	0A119A	B61C11F12MS1V124E48V19R15X29
(AF8047)	0A119A	B61C11F12MS1V124E51V19R15X29

BOFLAP SPECTRA ALLRON REFERENCE INFORMATION

BOFLAP	SPECTRA	ALLRON	REFERENCE INFORMATION
.000	25.000	.000	SREF 2690.0100 50.00
.000	25.000	.000	LREF 474.8100 10.00
.000	25.000	.000	BREF 936.6800 10.00
.000	25.000	.000	XMRP 1075.4800 10.00
.000	25.000	.000	YMRP .0000 10.00
.000	25.000	.000	ZMRP 375.0000 10.00
.000	25.000	.000	SCALE .0405 10.00

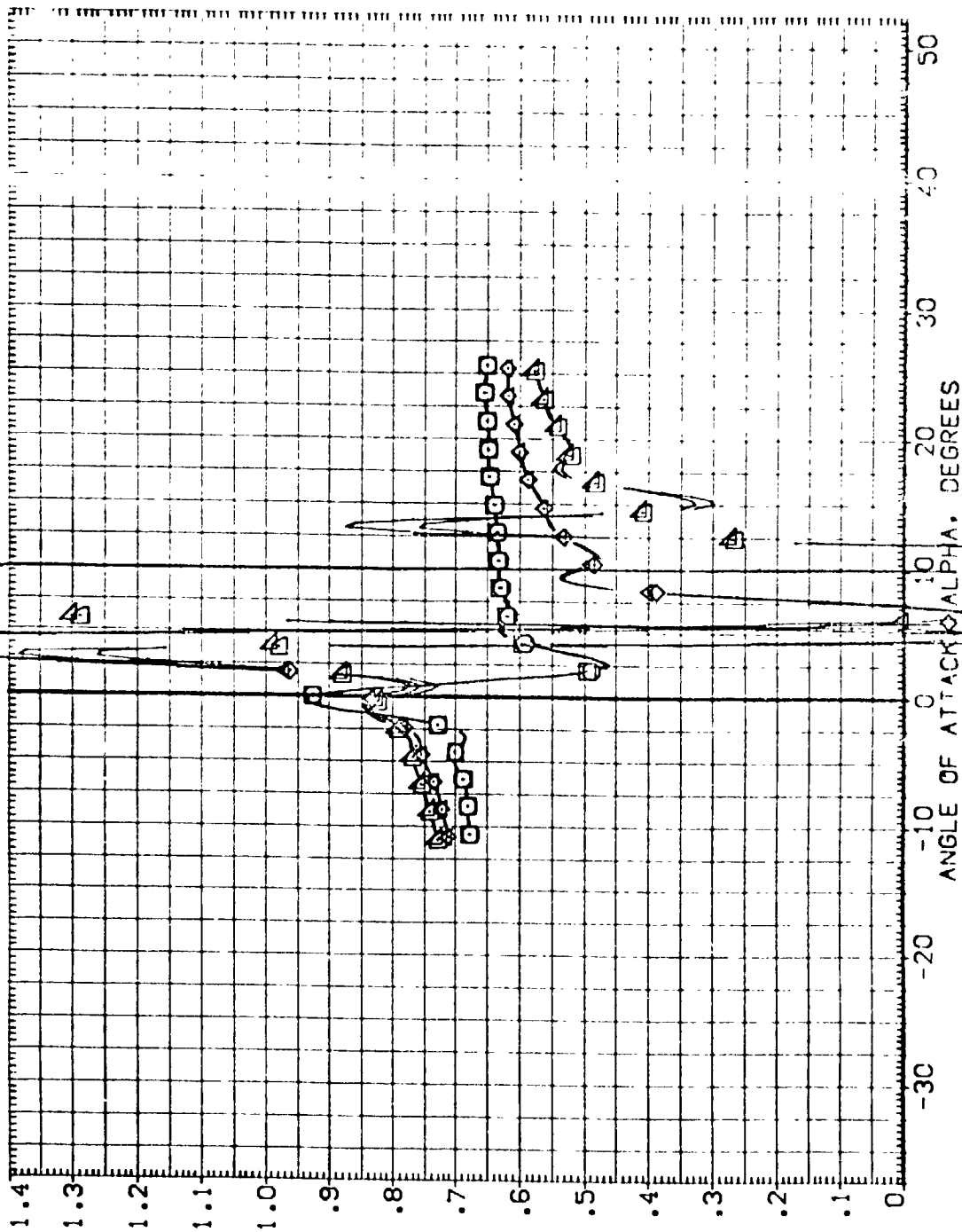


FIG 20 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON 0, -10, -20

CAJMACH = .26

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

Q	0A119A	98	C11	2-5	V124E18V	98	15X29
	0A119A	98	C11	2-5	V124E18V	98	15X29
	0A119A	98	C11	2-5	V124E18V	98	15X29
	0A119A	98	C11	2-5	V124E18V	98	15X29

ELEVON

-30.000	0.000	25.000	0.000	50.000
-30.000	0.000	25.000	0.000	50.000
-30.000	0.000	25.000	0.000	50.000
-40.000	0.000	25.000	0.000	50.000

SPDRK

0.000	25.000	50.000
0.000	25.000	50.000
0.000	25.000	50.000
0.000	25.000	50.000

AILRON

0.000	25.000	50.000
0.000	25.000	50.000
0.000	25.000	50.000
0.000	25.000	50.000

REFERENCE INFORMATION

SREF	2690.0100	50.000
LREF	474.8100	50.000
BREF	936.6800	50.000
YMRP	1076.4800	50.000
ZMRP	375.0000	50.000
SCALE	0.0405	50.000

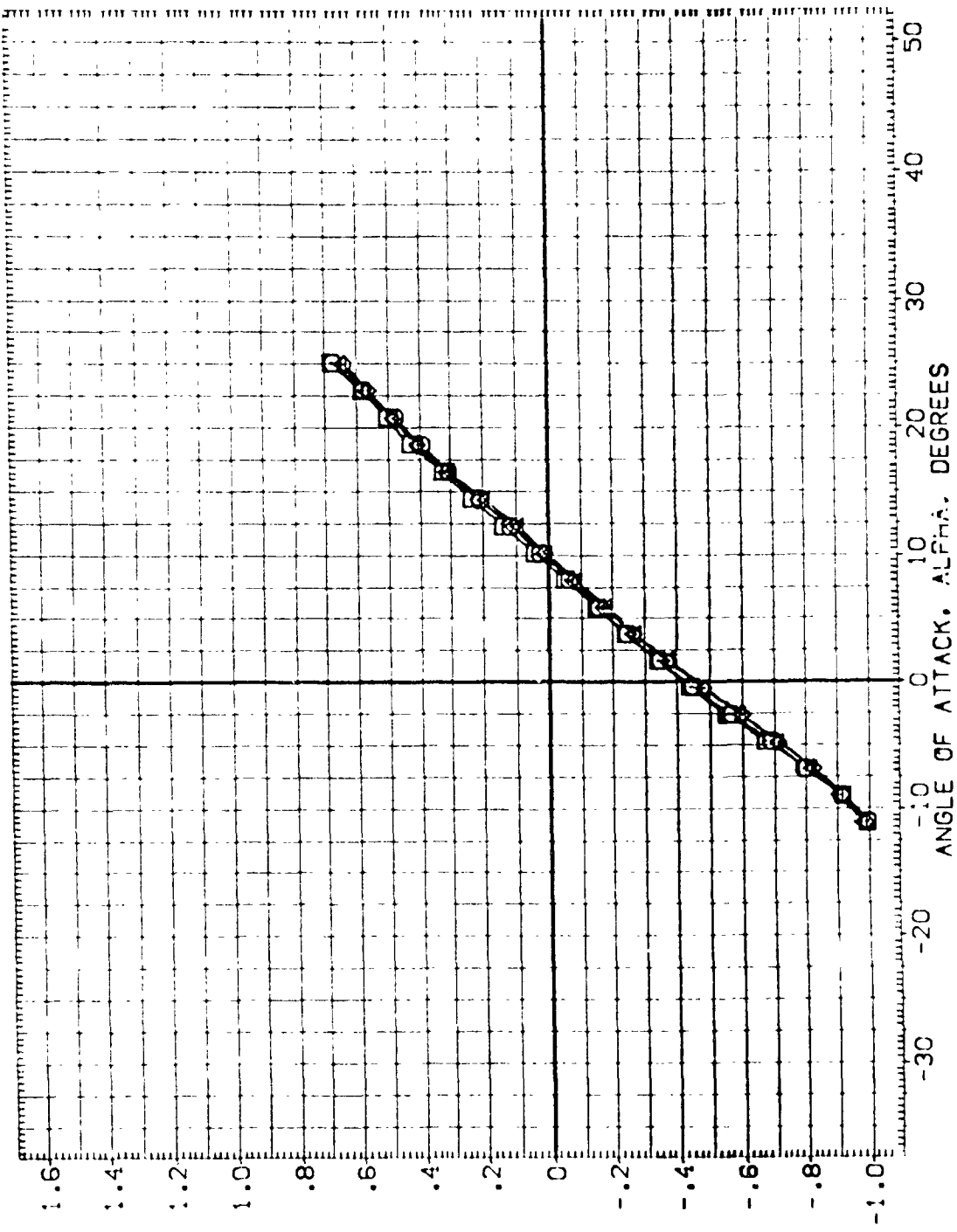


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A)MACH = .26
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BD FLAP	SPDBRK	AIRLON	REFERENCE INFORMATION
[AF8012]	0A119A B61C11F12V51V124E48V19R15X29	-30.000	.000	25.000	.000	SREF 2690.0100 SQ.FT
[AF8046]	0A119A B61C11F12V51V124E51V19R15X29	-30.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8006]	0A119A B61C11F12V51V124E48V19R15X29	-40.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8045]	0A119A B61C11F12V51V124E51V19R15X29	-40.000	.000	25.000	.000	YMRP 1076.4800 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405

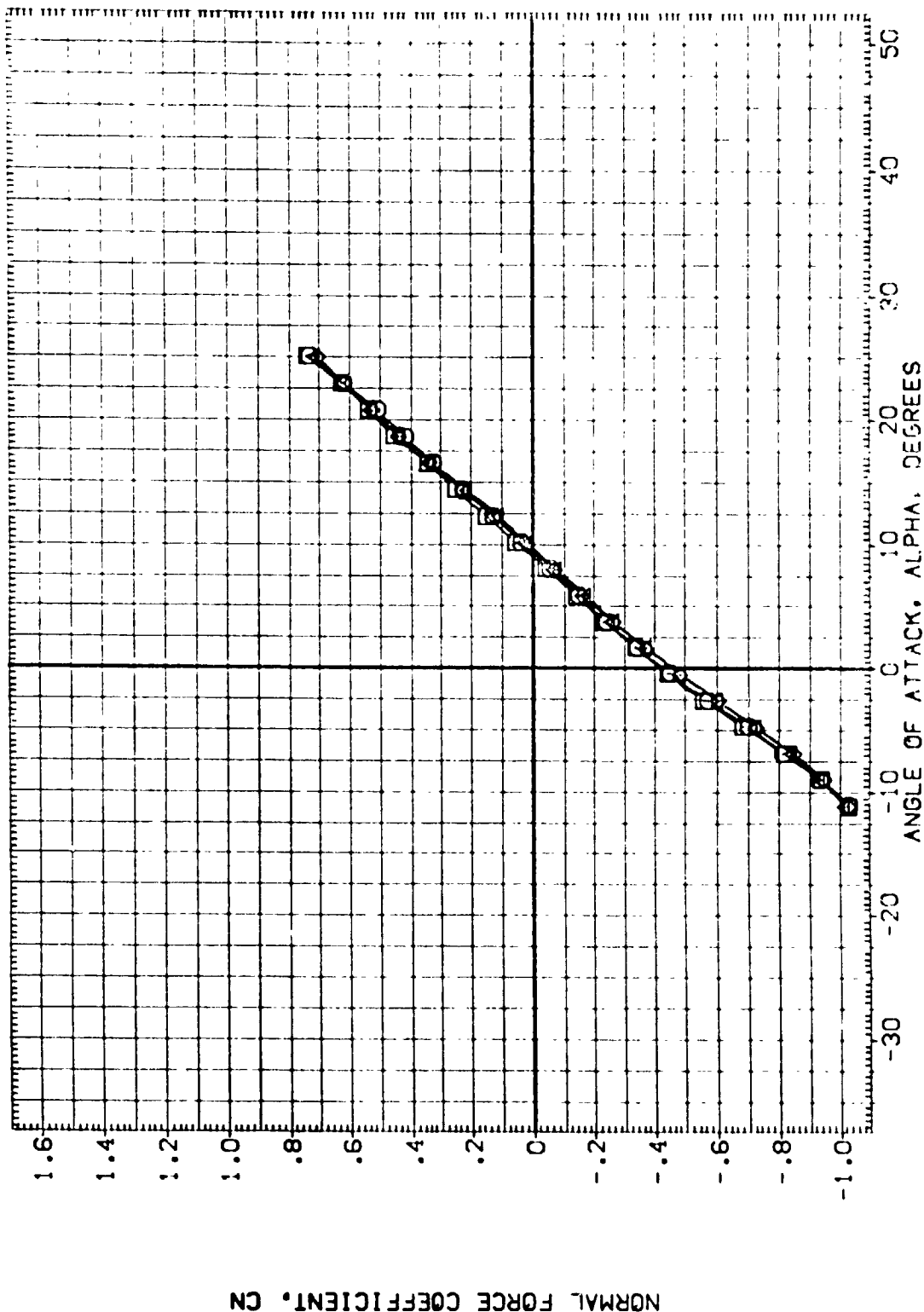


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
(A)MACH = .26 PAGE 172

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8012)	0A119A 861C11F12M51V124E48V19R15X29	-30.000	.000	25.000	.000	SRF 2890.0100 50.FT.
(AF8046)	CA119A 861C11F12M51V124E51V19R15X29	-30.000	.000	25.000	.000	LREF 474.8100 INCHES
(AF8006)	CA119A 861C11F12M51V124E48V19R15X29	-40.000	.000	25.000	.000	SRF 936.6800 INCHES
(AF8045)	CA119A 861C11F12M51V124E51V19R15X29	-40.000	.000	25.000	.000	XREF 1076.4800 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0405

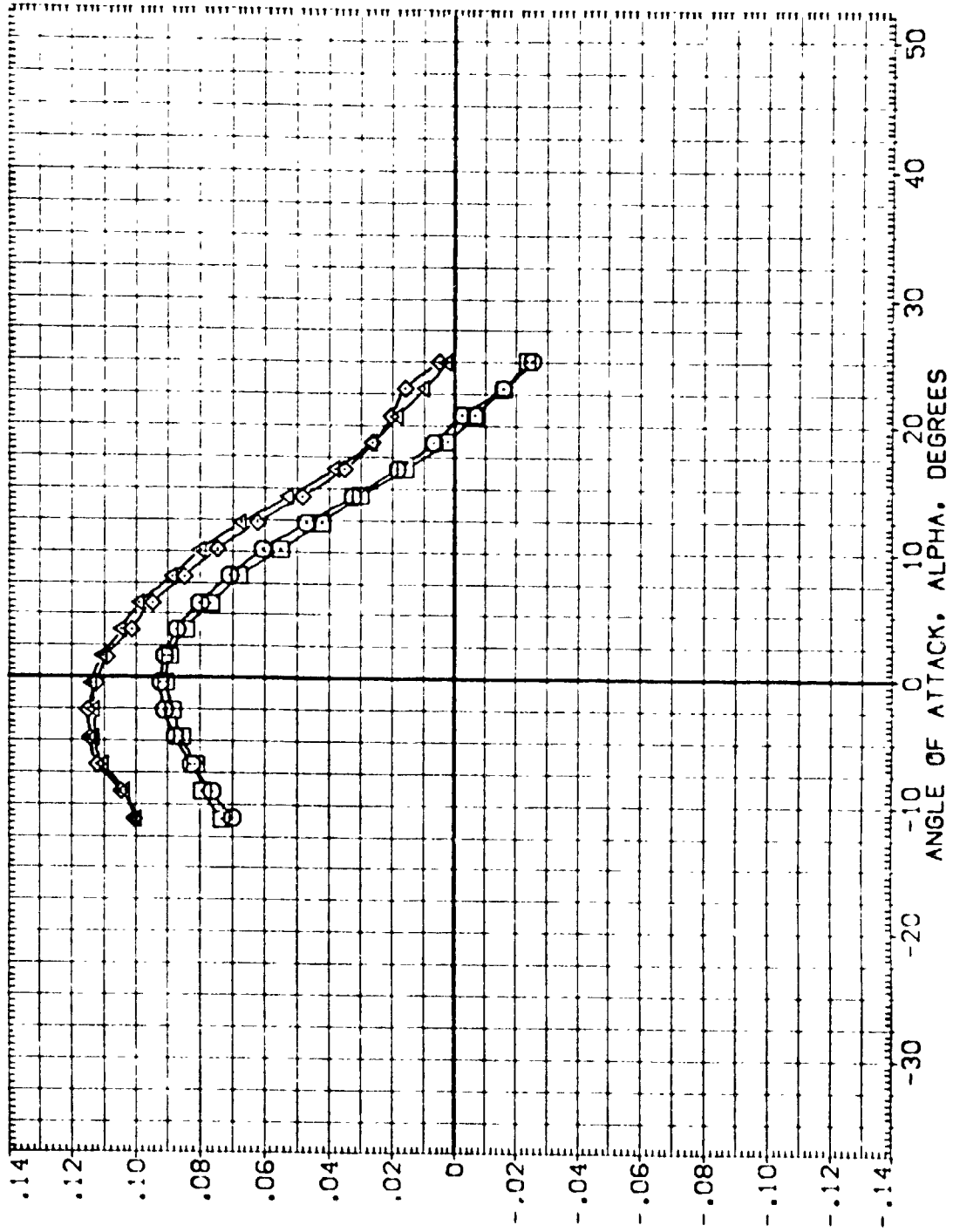


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A)MACH = .26 PAGE 173

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BDFLAP	SPDRBK	AIRCON	REFERENCE INFORMATION
(AF8012)	GA119A B61C1F12V51V124E48V19R15X29	-30.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8046)	GA119A B61C1F12V51V124E51V19R15X29	-30.000	.000	25.000	.000	LREF 874.8100 INCHES
(AF8006)	GA119A B61C1F12V51V124E48V19R15X29	-40.000	.000	25.000	.000	BREF 936.6600 INCHES
(AF8045)	GA119A B61C1F12V51V124E51V19R15X29	-40.000	.000	25.000	.000	XMRP 1076.4800 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0405

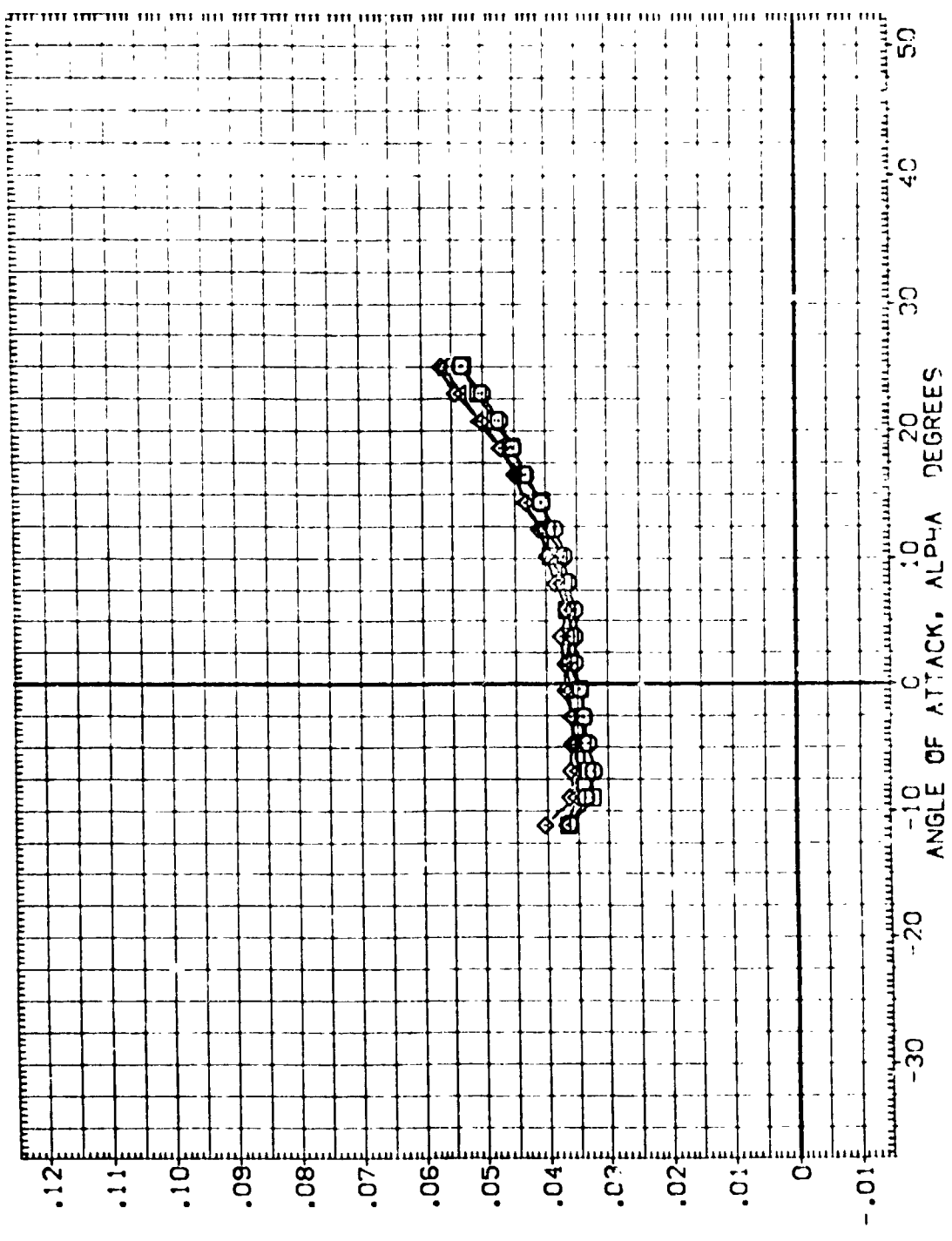


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A)MACH = .26 PAGE 174

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILTRON	REFERENCE INFORMATION
[AF8012]	0A119A 98 C11F 2-5 V124E48V19815X29	-30.000	.000	25.000	.000	SREF 7690.0100 SQ.FT.
[AF8046]	0A119A 98 C11F 2-5 V124E51V19815X29	-30.000	.000	25.000	.000	LREF 474.8100 NCES
[AF8006]	0A119A 98 C11F 2-5 V124E48V19815X29	-40.000	.000	25.000	.000	SREF 936.6800 NCES
[AF8045]	0A119A 98 C11F 2-5 V124E51V19815X29	-40.000	.000	25.000	.000	LREF 1076.4800 NCES
						YREF 375.0000 NCES
						ZREF 10400 SCALE

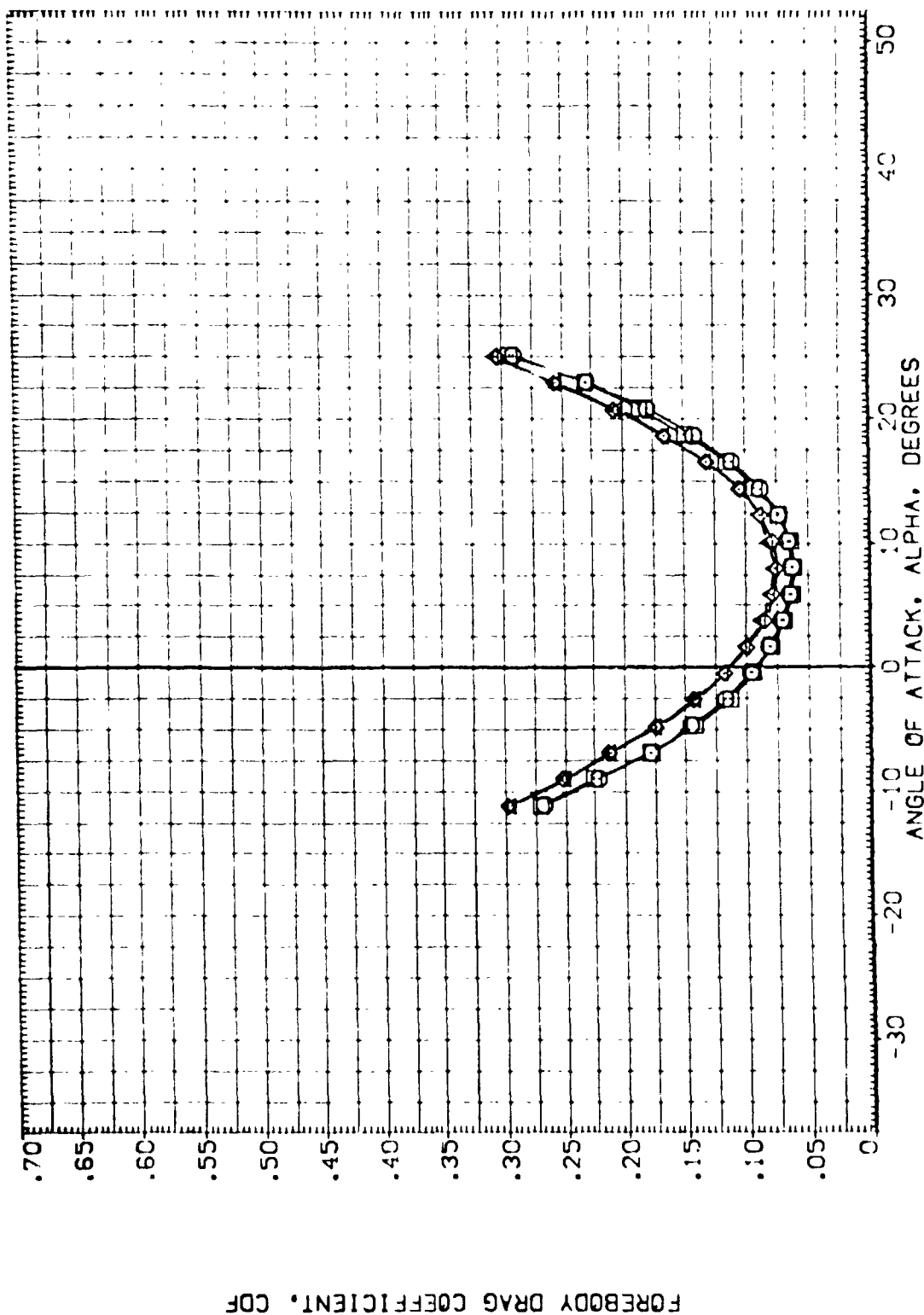


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BUFLAP	SPOILER	AILRON	REFERENCE INFORMATION
(AF8012)	Q	-30.000	.000	25.000	.000	SREF 2690.0100 50.000
(AF8046)	X	-30.000	.000	25.000	.000	LREF 474.8100 10.000
(AF8006)		-40.000	.000	25.000	.000	BREF 936.6800 10.000
(AF8045)		-40.000	.000	25.000	.000	XREF 1076.4800 10.000
						YREF .0000 10.000
						ZREF .0000 10.000
						SCALE .0405

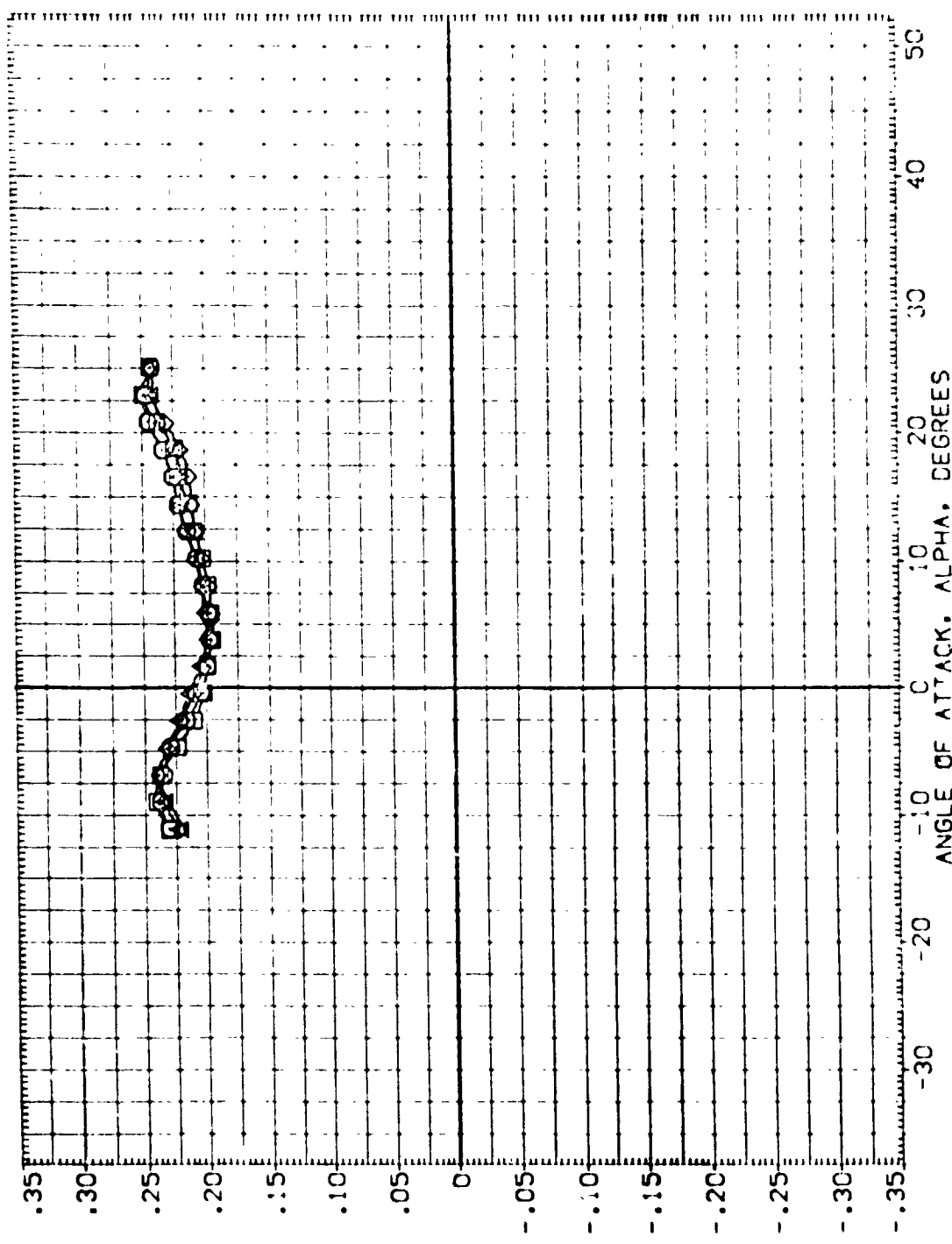


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A) MACH = .26 PAGE 176

DATA SET SYMOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AIRLON	REFERENCE INFORMATION
[AF8012]	DA119A B61C11F 275 124E48 9915X28	-30.000	.000	25.000	.000	SREF 2650.0100 SQ.FT.
[AF8046]	DA119A B61C11F 275 124E51V 9915X29	-30.000	.000	25.000	.000	LOEF 474.8100 1-C-E-S
[AF8008]	CA119A B61C11F 275 124E48V 9915X29	-40.000	.000	25.000	.000	BOEF 936.6800 1-C-E-S
[AF8045]	CA119A B61C11F 275 124E51V 9915X29	-40.000	.000	25.000	.000	WRO 1276.4800 1-C-E-S
						YWRP 375.0000 1-C-E-S
						SCALE .0105 1-C-E-S

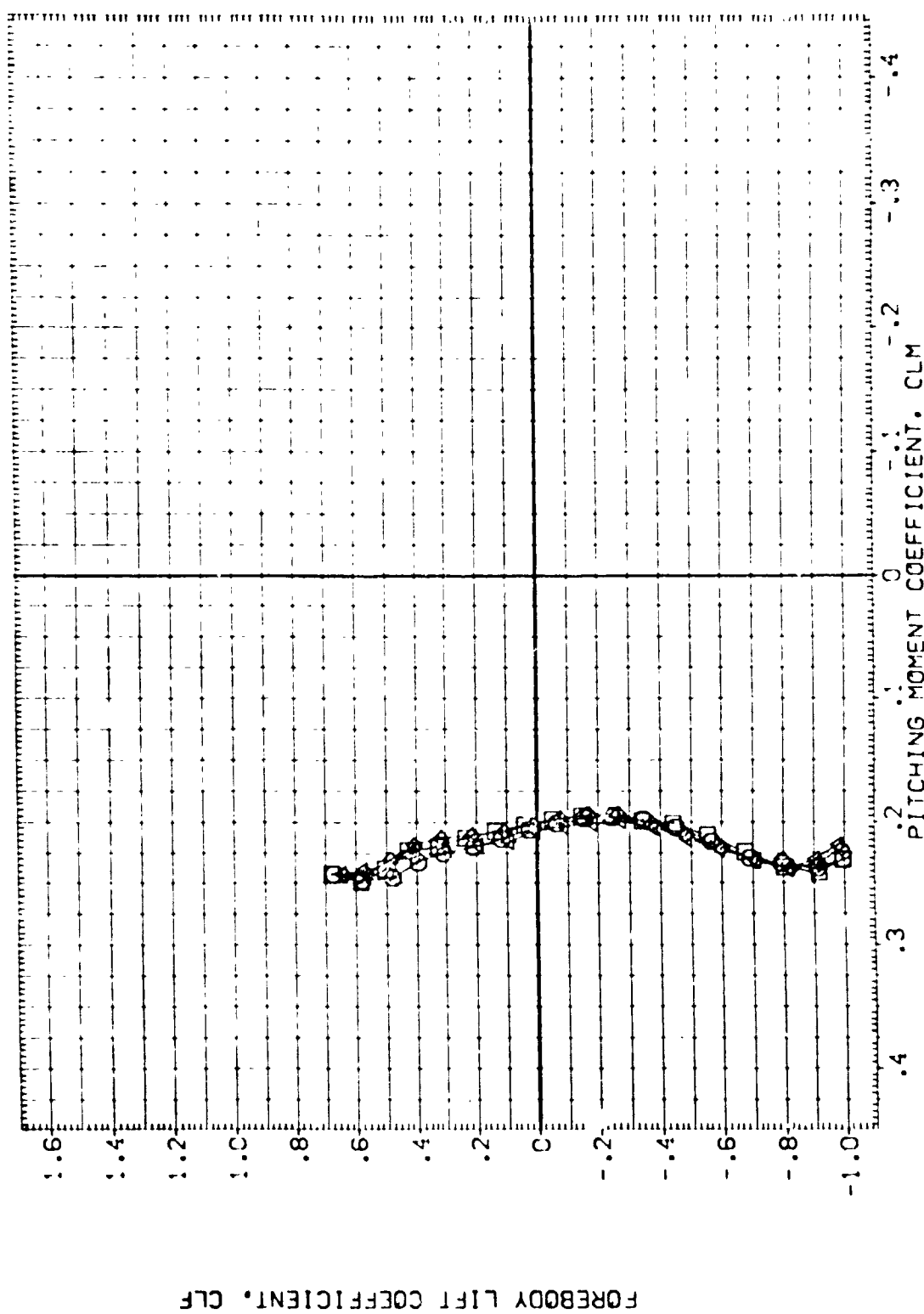


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (MACH = .26) PAGE 177

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	ATLRON	REFERENCE INFORMATION
(AF8012)	0A119A B61C1F1251V124E48V1SR15X29	-30.000	.000	25.000	.000	SREF 2690.0100 50.FT.
(AF8046)	0A119A B61C1F1251V124E51V1SR15X29	-30.000	.000	25.000	.000	LREF 474.8100 1NCHS
(AF8006)	0A119A B61C1F1251V124E48V1SR15X29	-40.000	.000	25.000	.000	BREF 936.6800 1NCHS
(AF8045)	0A119A B61C1F1251V124E51V1SR15X29	-40.000	.000	25.000	.000	XPRP 1076.4800 1NCHS
						YPRP .0000 1NCHS
						ZPRP 375.0000 1NCHS
						SCALE .0405 SCALE

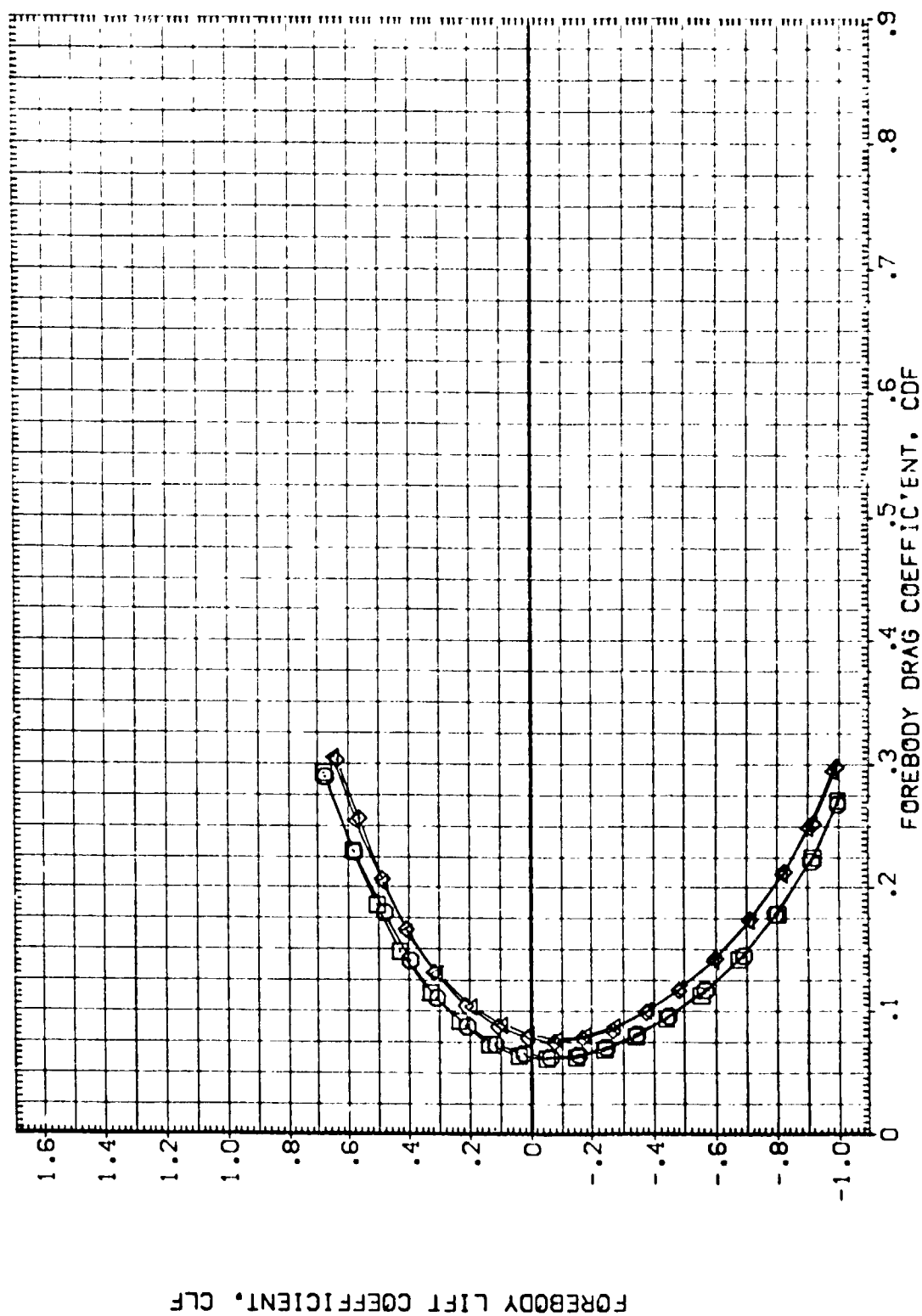


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A)MACH = .26 PAGE 178

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ORIGINAL PAGE IS POOR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
(AF8012)	GA119A B61C F1251V 24E48V19R15X29	-30.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8046)	GA119A B61C F1251V 24E51V19R15X29	-30.000	.000	25.000	.000	LREF 474.8100 NO.FS
(AF8008)	GA119A B61C F1251V 24E48V19R15X29	-40.000	.000	25.000	.000	BREF 938.6800 NO.FS
(AF8045)	GA119A B61C F1251V 24E51V19R15X29	-40.000	.000	25.000	.000	XREF 1076.4800 NO.FS
						YREF .0000 NO.FS
						ZREF .0000 NO.FS
						SCALE .0405

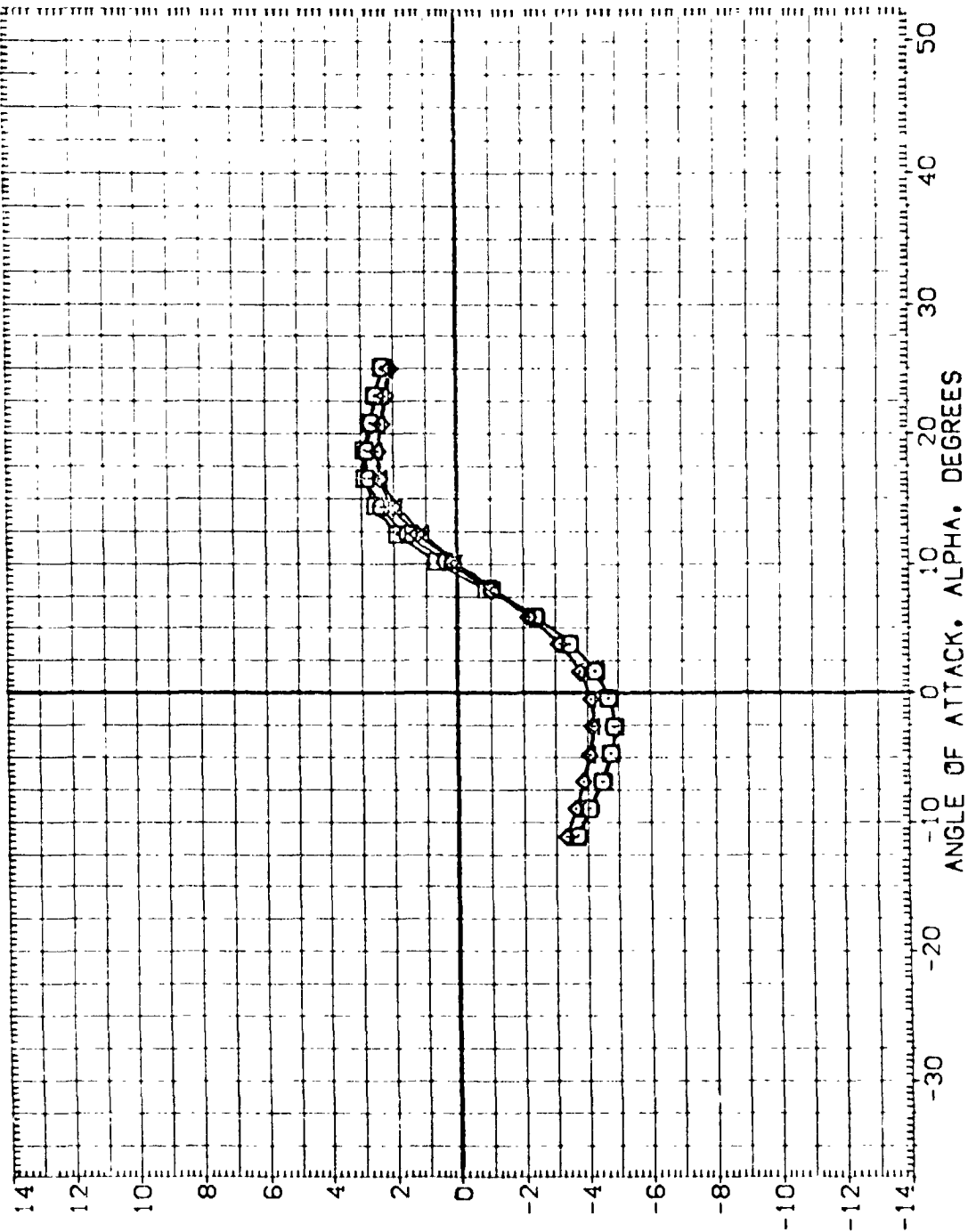


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
(A) MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRY	AILRON	REFERENCE INFORMATION
{AF8012}	GA119A B61C1F12MS1V124E48V19815X29	-31.000	.000	25.000	.000	SREF 2690.0100 50.00
{AF8046}	GA119A B61C1F12MS1V124E51V19815X29	-31.000	.000	25.000	.000	LREF 474.8100 10.00
{AF8006}	GA119A B61C1F12MS1V124E48V19815X29	-43.000	.000	25.000	.000	BREF 936.6800 10.00
{AF8045}	GA119A B61C1F12MS1V124E51V19815X29	-43.000	.000	25.000	.000	AMRP 1076.4800 10.00
						YMRP .0000 10.00
						ZMRP 375.0000 10.00
						SCALE .0425

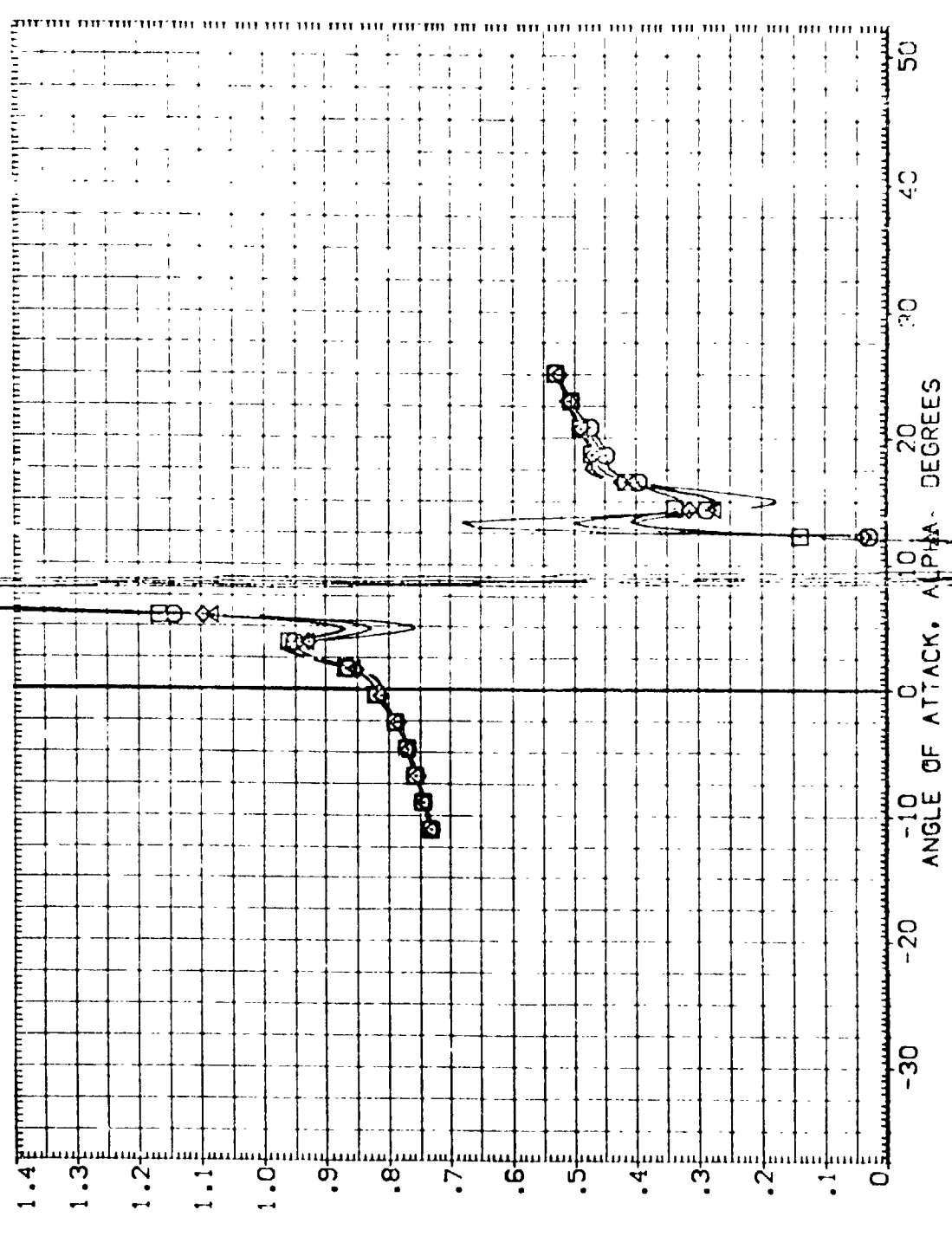


FIG 21 EFFECT OF WING/ELEVON GAP ON ELEVON EFFECTIVENESS, ELEVON = -30, -40
 (A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION	
(AF8009)	0A119A B61C11F125S1V124E46V19R15X29	-40.000	.000	25.000	.000	SREF	2690.0100 50. FT.
(AF8044)	0A119A B61C11F125S1V124E50V19R15X29	-40.000	.000	25.000	.000	LREF	4.4.81.00 INCHES
						BREF	936.6800 INCHES
						XMRP	1076.4800 INCHES
						YMRP	.0000 INCHES
						ZMRP	375.0000 INCHES
						SCALE	.0409 INCHES

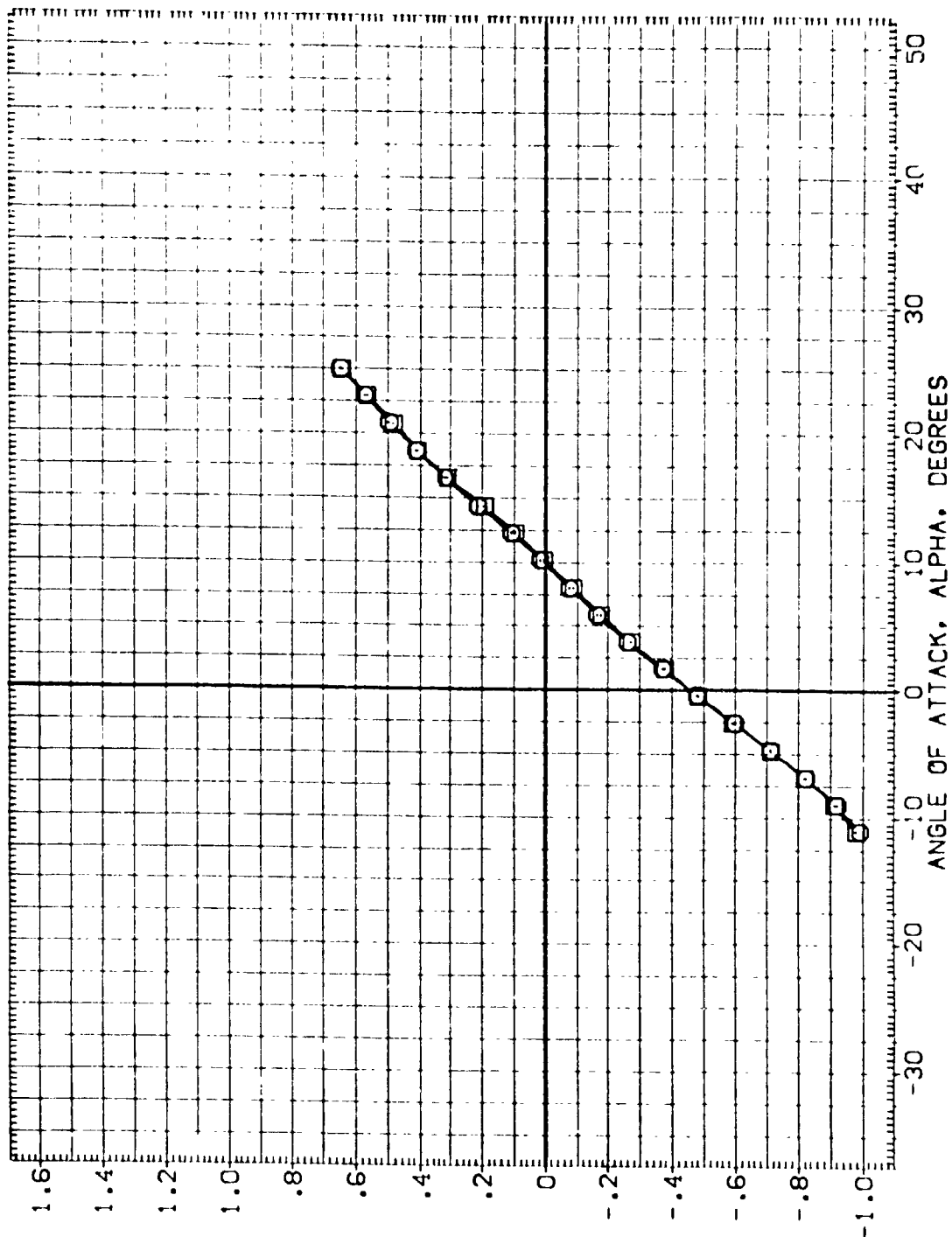


FIG 22 EFFECT OF ELEVON HINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL 6
 (AF8009)
 (AF8044)

CONFIGURATION DESCRIPTION

8A119A 98|C11F|275|V124E46V|9R15X23
 8A119A 98|C11F|275|V124E50V|9R15X23

ELEVON
 -40.000
 -40.000

BDELAP
 .000
 .000

SPOBRK
 75.000
 75.000

ALLRON
 .000
 .000

REFERENCE INFORMATION
 SREF 2690.0100 SQ.FT.
 LREF 474.8100 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.4800 INCHES
 YMRP 375.0000 INCHES
 ZMRP 375.0000 INCHES
 SCALE .0400 SCALE

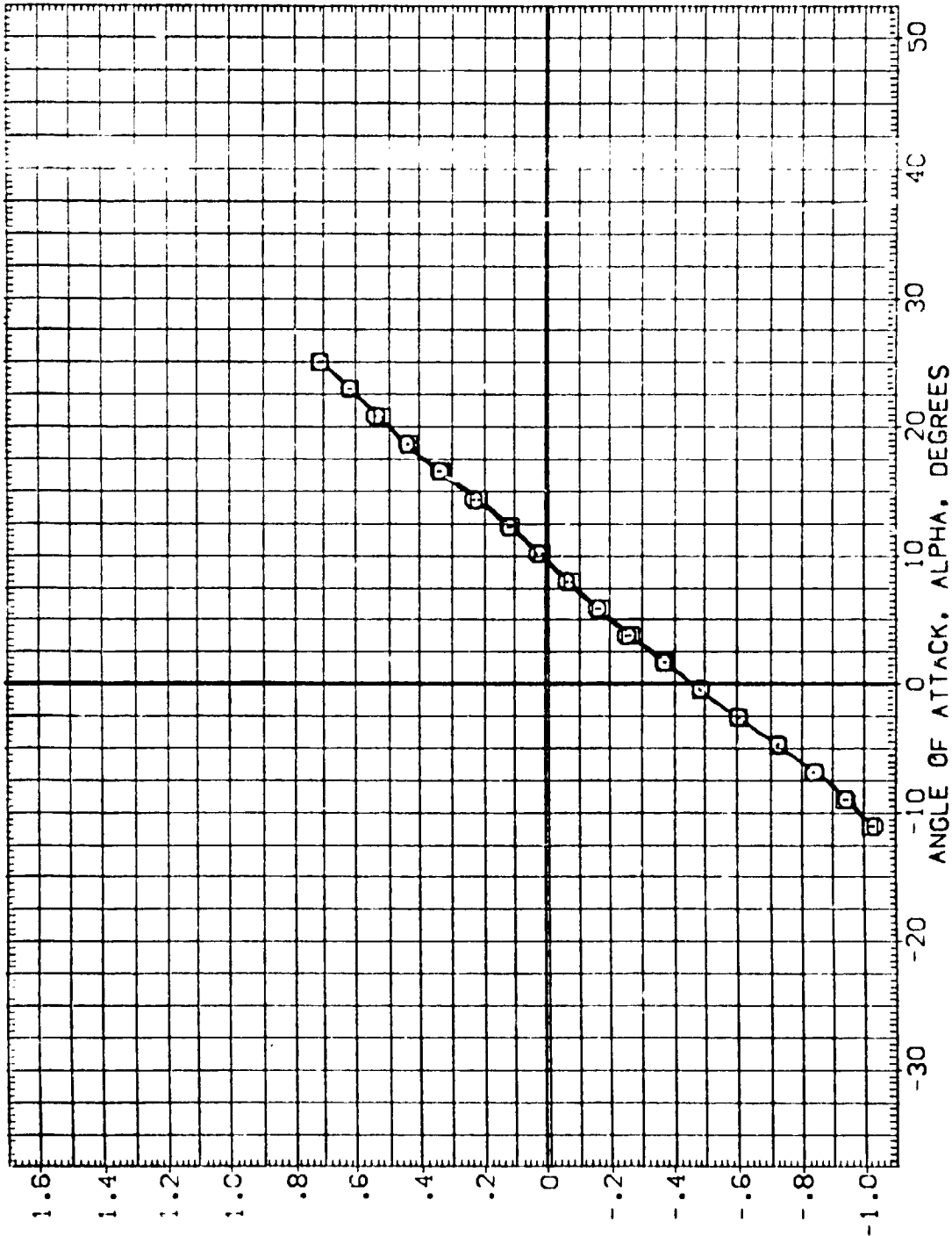


FIG 22 EFFECT OF ELEVONHINGELINE ROUGHNESS

(A)MACH .26

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPD3BK	AIRLON	REFERENCE INFORMATION
(AF8009)	0A119A B6C1F12MS1V124E46V19R15X29	-40.000	.000	25.000	.000	SPREF 2690.0170 SQ.FT.
(AF8044)	0A119A B6C1F12MS1V124E50V19R15X29	-40.000	.000	25.000	.000	LPREF 474.8110 INCHES
						BRPF 936.6600 INCHES
						YMRP 1076.4800 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0403

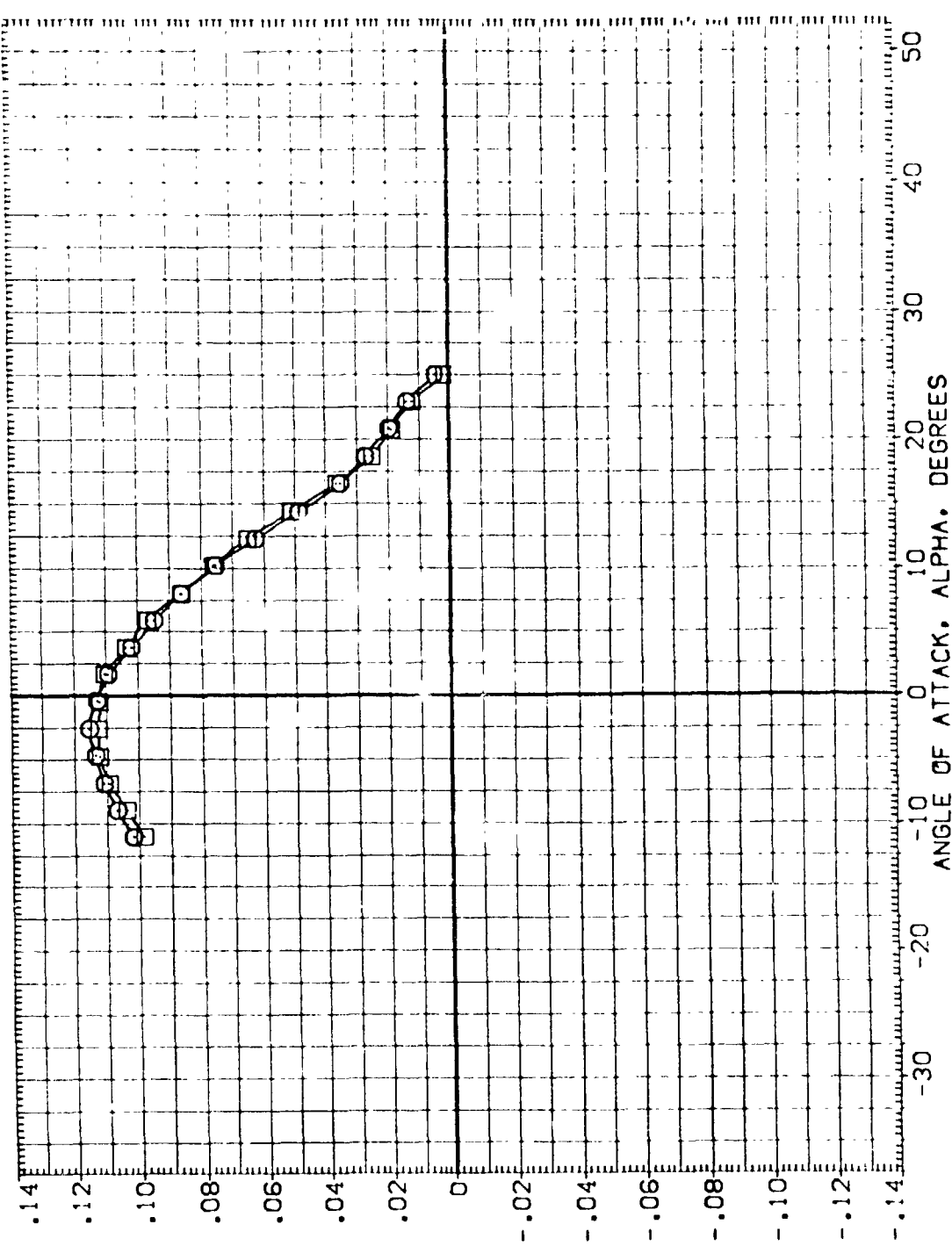
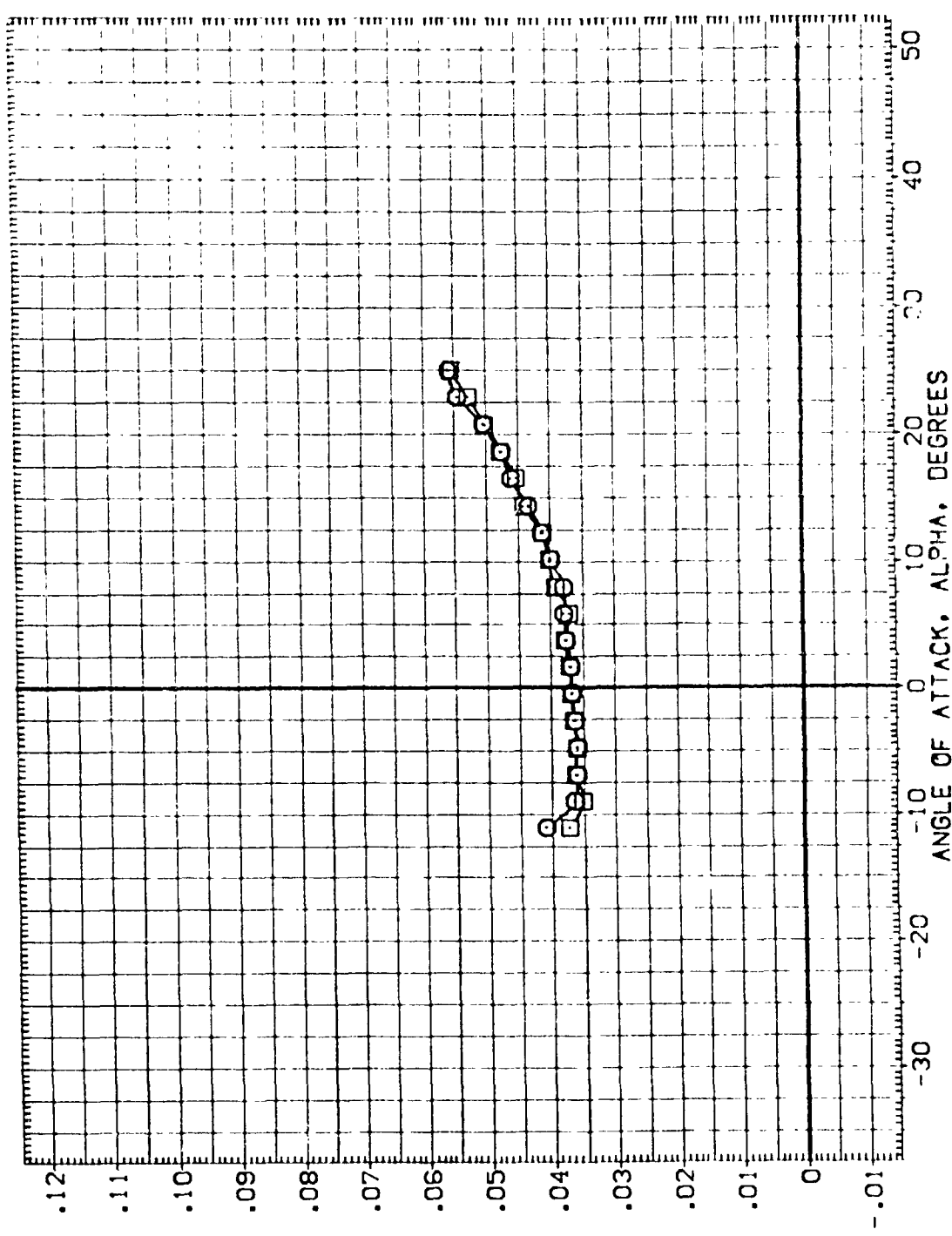


FIG 22 EFFECT OF ELEVONHINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPUBRK	AIRLON	REFERENCE INFORMATION
(AF8009)	0A119A B61C11F12M51V124E46V19R15X29	-40.000	.000	25.000	.000	SREF 2690.0100 SO.FT
(AF8044)	0A119A B61C11F12M51V124E50V19R15X29	-40.000	.000	25.000	.000	LREF 474.8100 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405



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FIG 22 EFFECT OF ELEVON HINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
(AF8009)	0A119A B61C1F12151V124E16V19R15X29	-40.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8044)	0A119A B61C1F12151V124E50V19R15X29	-40.000	.000	25.000	.000	LREF 474.8100 INCHES
						BREF 936.6800 INCHES
						XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405

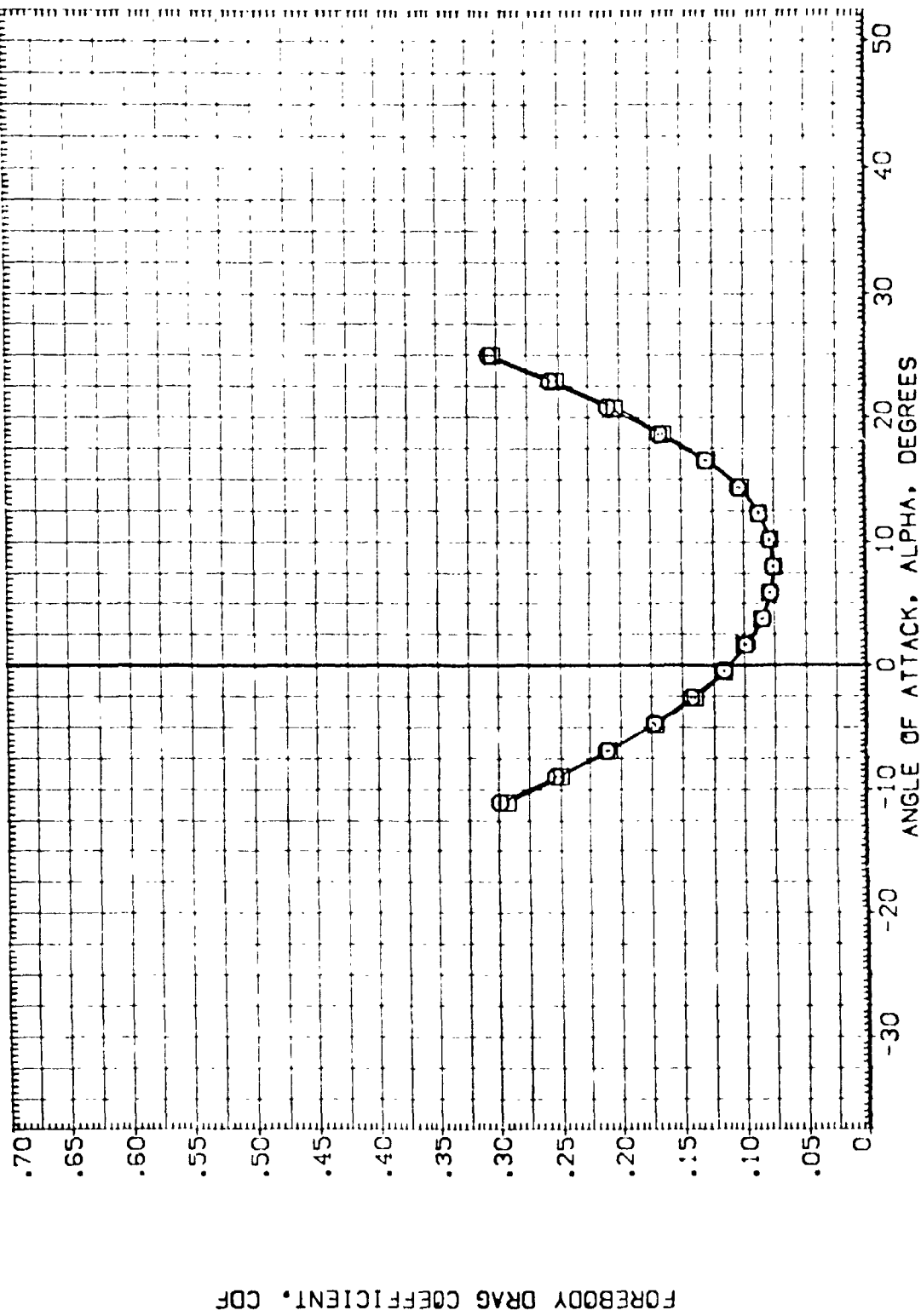


FIG 22 EFFECT OF ELEVONHINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (AF8009) 8 0A11SA B61C11F12M51V124E46V19815X29
 (AF8044) 8 0A11SA B61C11F12M51V124E50V19815X29

ELEVON BOFLAP SPARK ATLROD REFERENCE INFORMATION
 -40.000 .000 25.000 .000 SREF 2690.0100 SQ.FT.
 -40.000 .000 25.000 .000 LREF 474.8100 INCHES
 XMRP 1076.4800 INCHES
 YMRP .0000 INCHES
 ZMRP 375.0000 INCHES
 SCALE .0405 SCALE

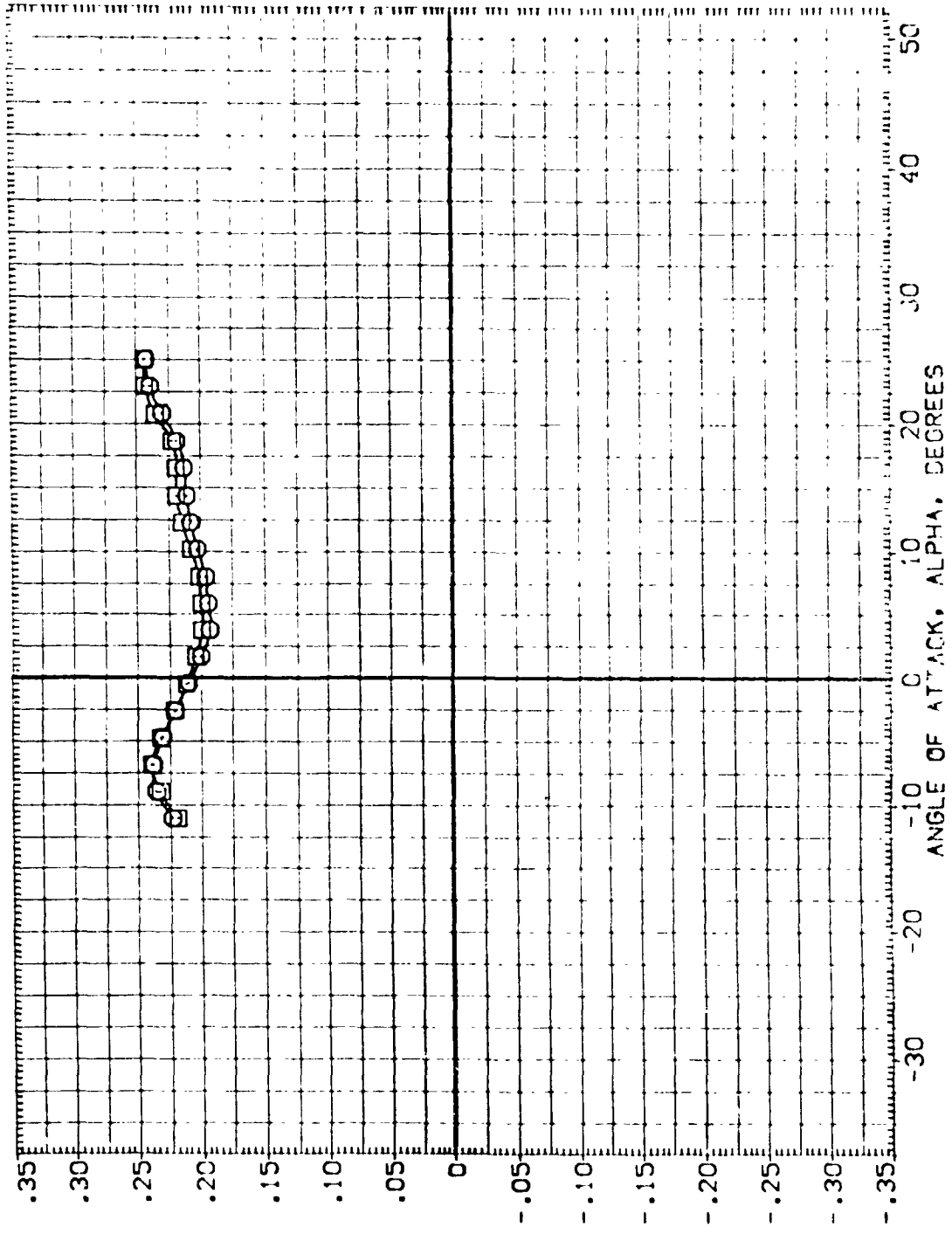


FIG 22 EFFECT OF ELEVONHINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL: Q
(AF8009)
(AF8044)

CONFIGURATION DESCRIPTION
DA119A 961C11F12451V124E46V19R15X29
DA119A 961C11F12451V124E50V19R15X29

ELEVON
-40.000
-40.000

BOFLAP
.000
.000

SPDBRK
25.000
25.000

ATLRON
.000
.000

REFERENCE INFORMATION
SREF 7690.0100 SQ.FT
LREF 414.8100 INCHES
BREF 936.6800 INCHES
VREF 1076.4800 INCHES
WREF 375.0000 INCHES
SCALE 10405

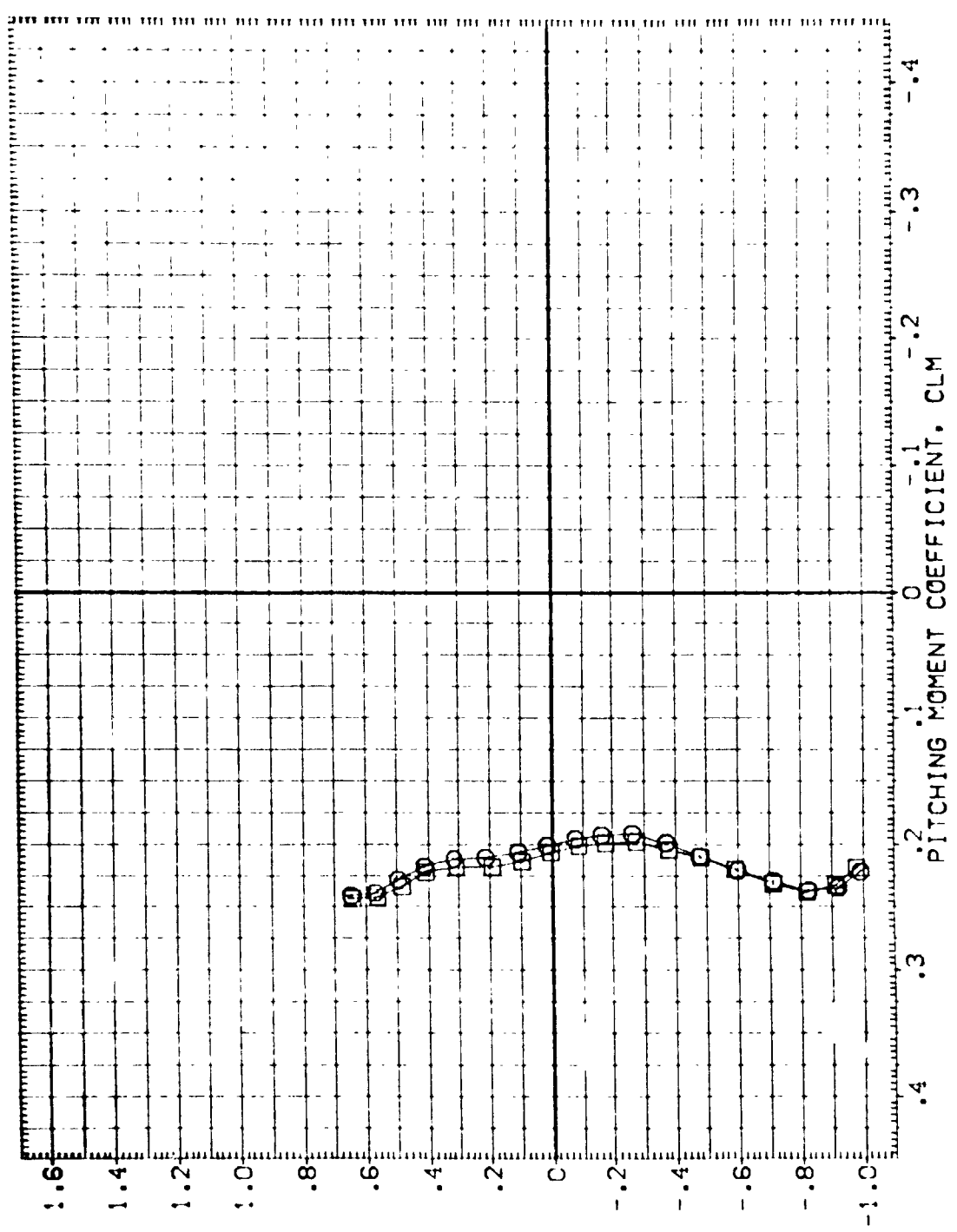


FIG 22 EFFECT OF ELEVON HINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	30FLAP	30UPRR	AIRFOIL	REFERENCE INFORMATION
(AF8008)	0A119A B61C1F12M51V124E46V192: X29	-40.000	.000	.25.000	.000	SREF 2690.0100 50.00
(AF8044)	0A119A B61C1F12M51V124E50V19R15X29	-40.000	.000	.25.000	.000	LREF 474.8100 10.00
						BREF 936.6800 10.00
						XMRP 1076.4800 10.00
						YMRP .0000 10.00
						ZMRP 375.0000 10.00
						SCALE .0455

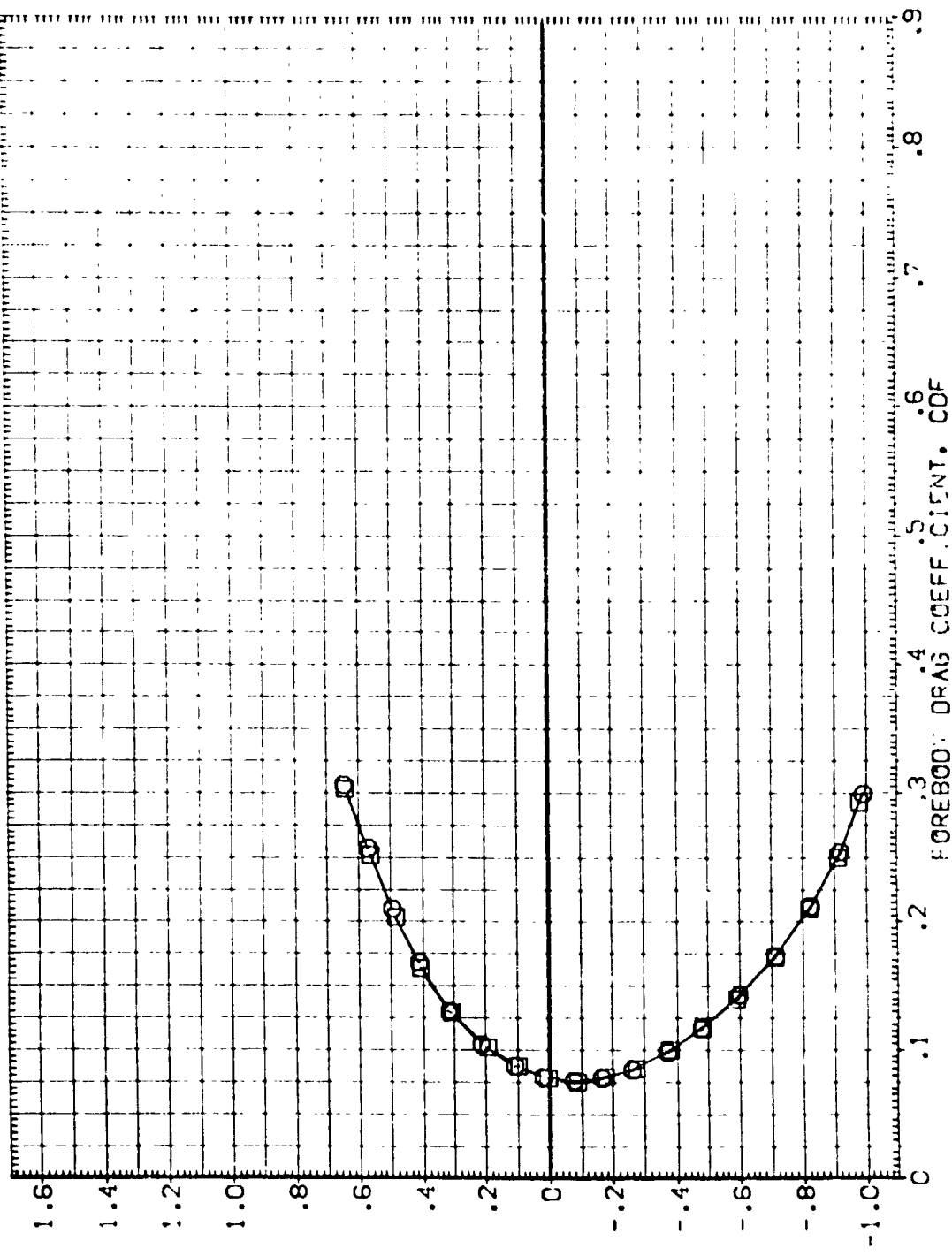


FIG 22 EFFECT OF ELEVON WINGLINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	ALLCON	REFERENCE INFORMATION
(AF8009)	0A119A B61C1F1251V124E46V19R15X29	-40.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8044)	0A119A B61C1F1251V124E50V19R15X29	-40.000	.000	25.000	.000	LREF 414.8100 INCHES
						BREF 936.6800 INCHES
						XMRP .076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0405

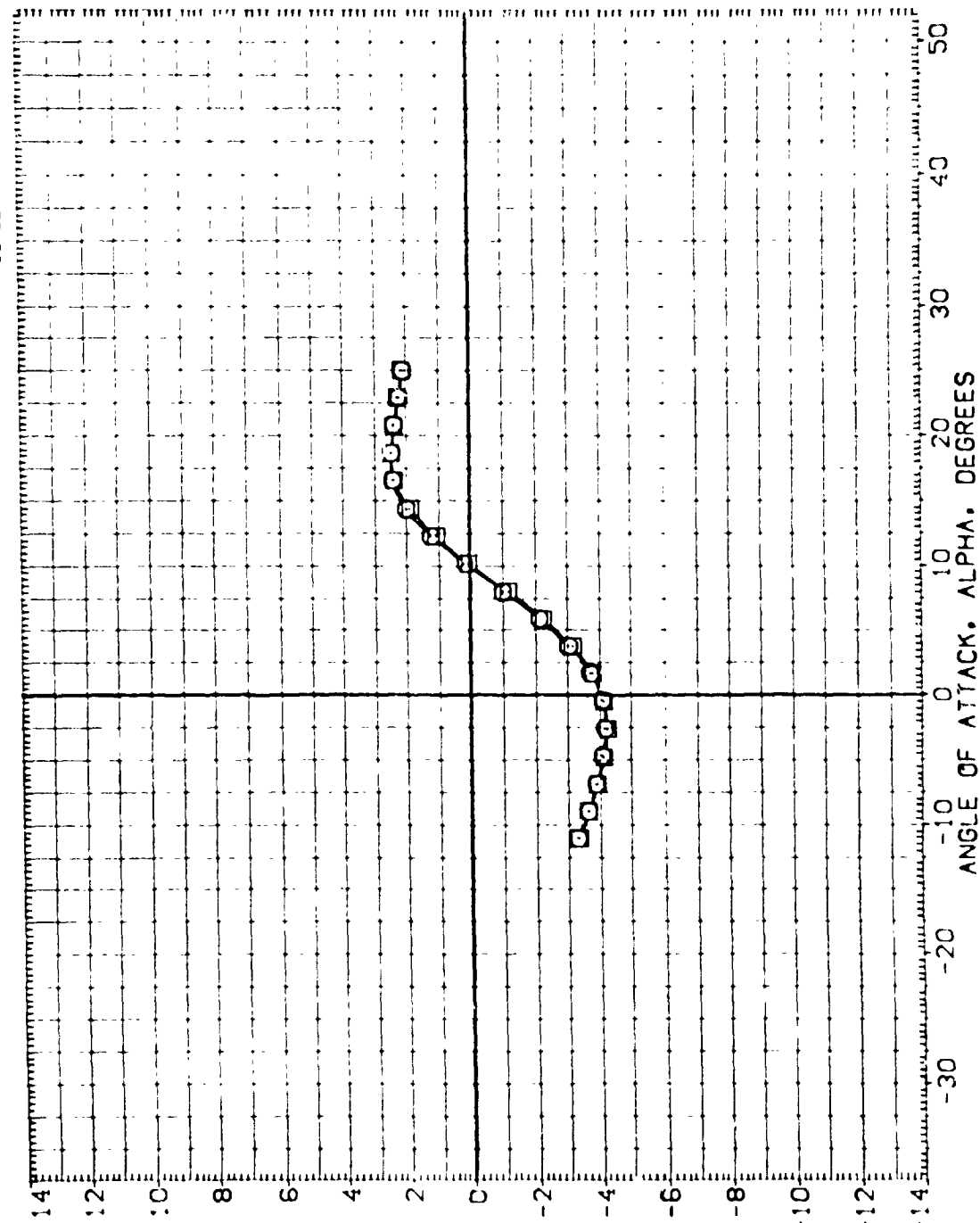


FIG 22 EFFECT OF ELEVON HINGELINE ROUGHNESS

(A)MACH = .26

DATA SET SYMBOL: 01119A
 (AF8009) 01119A
 (AF8044) 01119A

CONFIGURATION DESCRIPTION

ELEVON

REFERENCE INFORMATION
 SREF 3690.0100
 LREF 474.8100
 BREF 936.6800
 YMRP 1076.4800
 ZMRP 375.0000
 SCALE 10.05

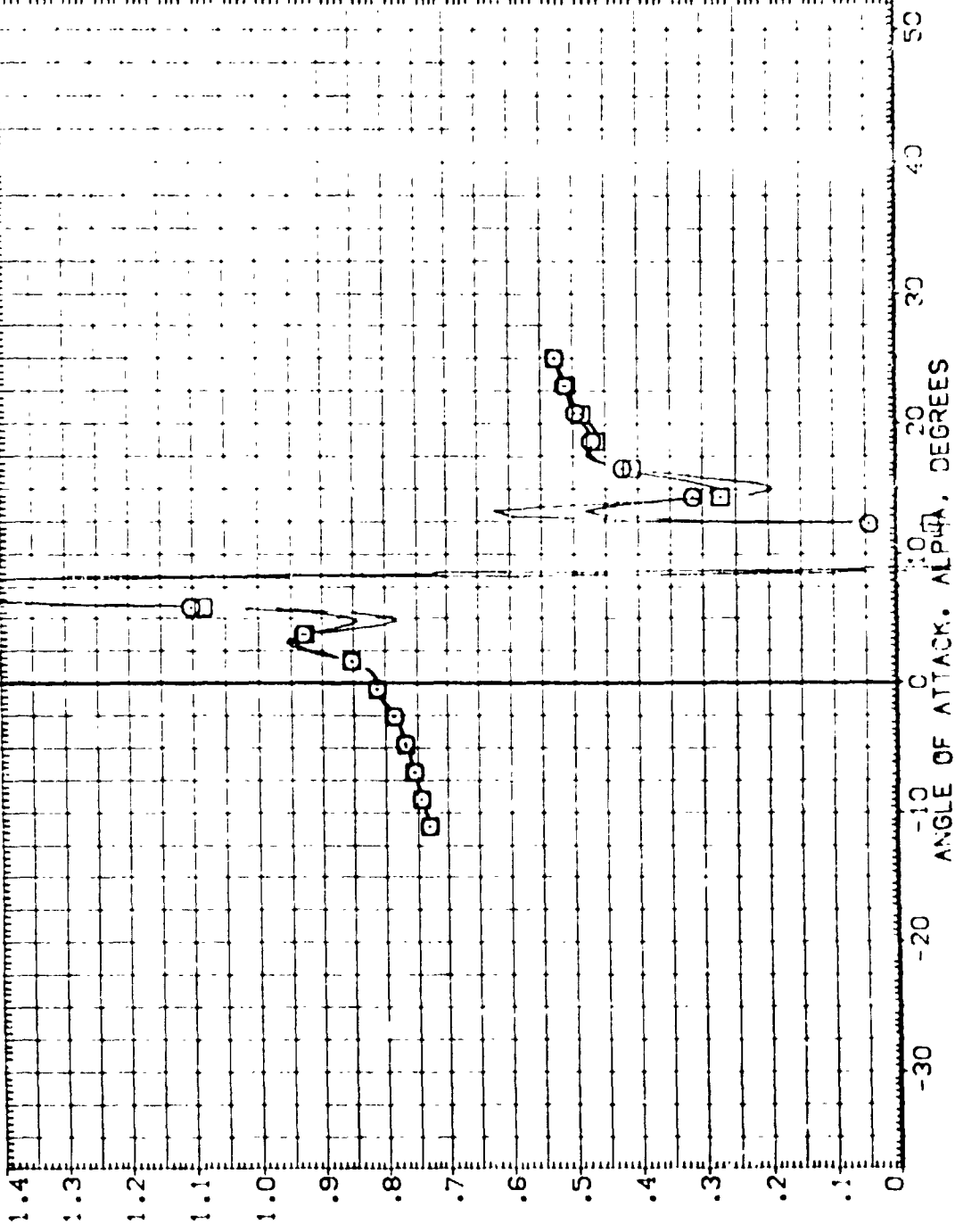


FIG 22 EFFECT OF ELEVON HINGELINE ROUGHNESS

(A)MACH = .26

0.05 1.90

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
(AF8004)	CA119A B61C1F1 25 V124E18V1 9815X29	.000	.000	25.000	.000	SREF .590.0100 SC.FT.
(AF8005)	CA119A B61C1F1 25 V124E18V1 9815X29	.000	-12.000	25.000	.000	LREF 474.8100 C-LES
(AF8006)	CA119A B61C1F1 25 V124E18V1 9815X29	.000	.000	25.000	.000	BREF 936.6800 C-LES
(AF8007)	CA119A B61C1F1 25 V124E18V1 9815X29	.000	-12.000	25.000	.000	XREF 576.4800 C-LES
(AF8008)	CA119A B61C1F1 25 V124E18V1 9815X29	.000	.000	25.000	.000	YREF 375.0000 C-LES
(AF8009)	CA119A B61C1F1 25 V124E18V1 9815X29	.000	.000	25.000	.000	SCALE .0400 SCALE

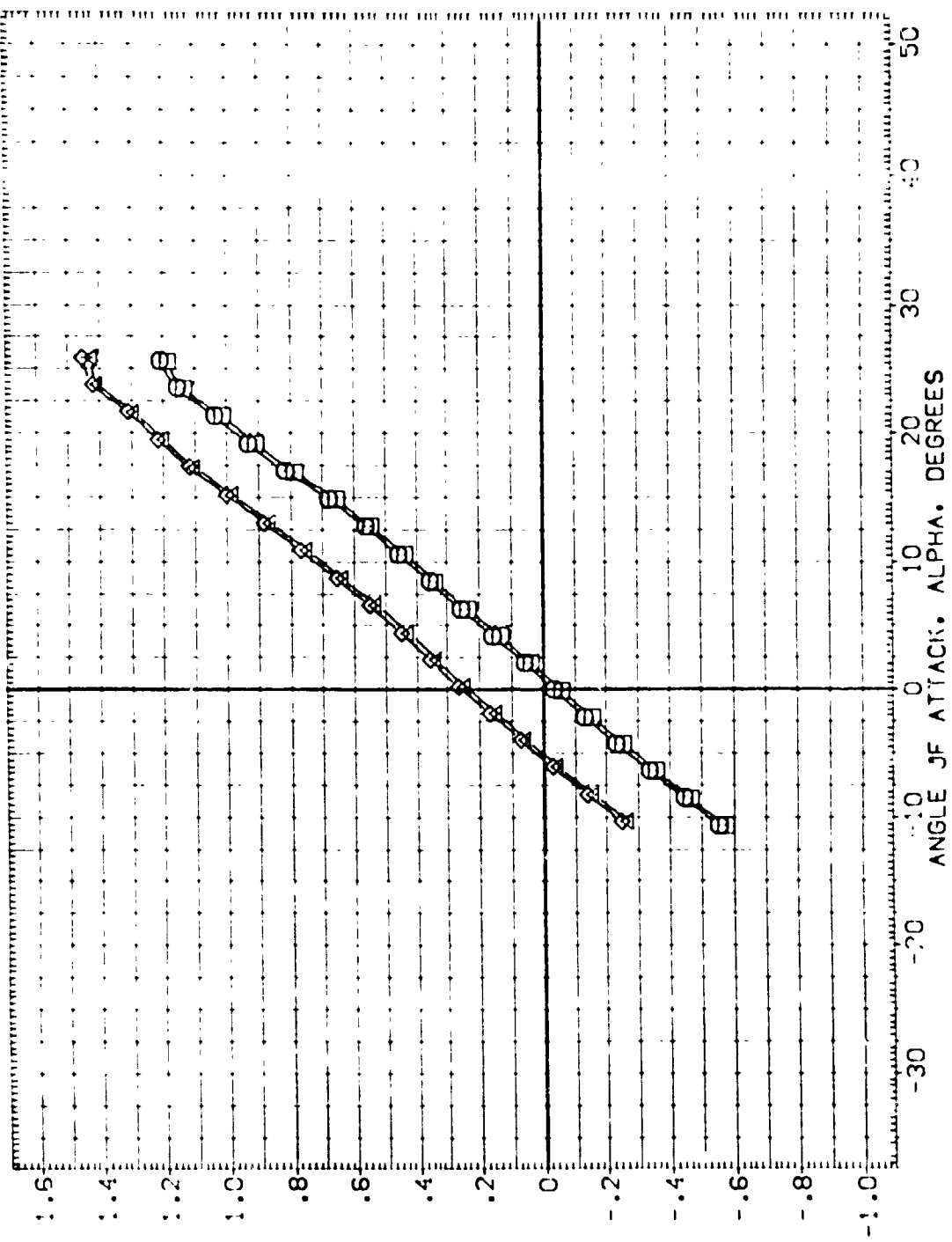


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	50FLAP	SPUSK	AILRON	REFERENCE INFORMATION
[AF8004]	0A119A B61C1F124S1V124E48V19R15X29	.000	.000	25.000	.000	2690 01.00 50. FT
[AF8005]	0A119A B61C1F124S1V124E48V19R15X29	.000	-12.000	25.000	.000	474.81.00 10.00
[AF8030]	0A119A B61C1F124S1V124E48V19R15X29	15.000	.000	25.000	.000	936.6800 10.00
[AF8036]	0A119A B61C1F124S1V124E48V19R15X29	15.000	-12.000	25.000	.000	1076.4800 10.00
						375.0000 10.00
						SCALE .0405

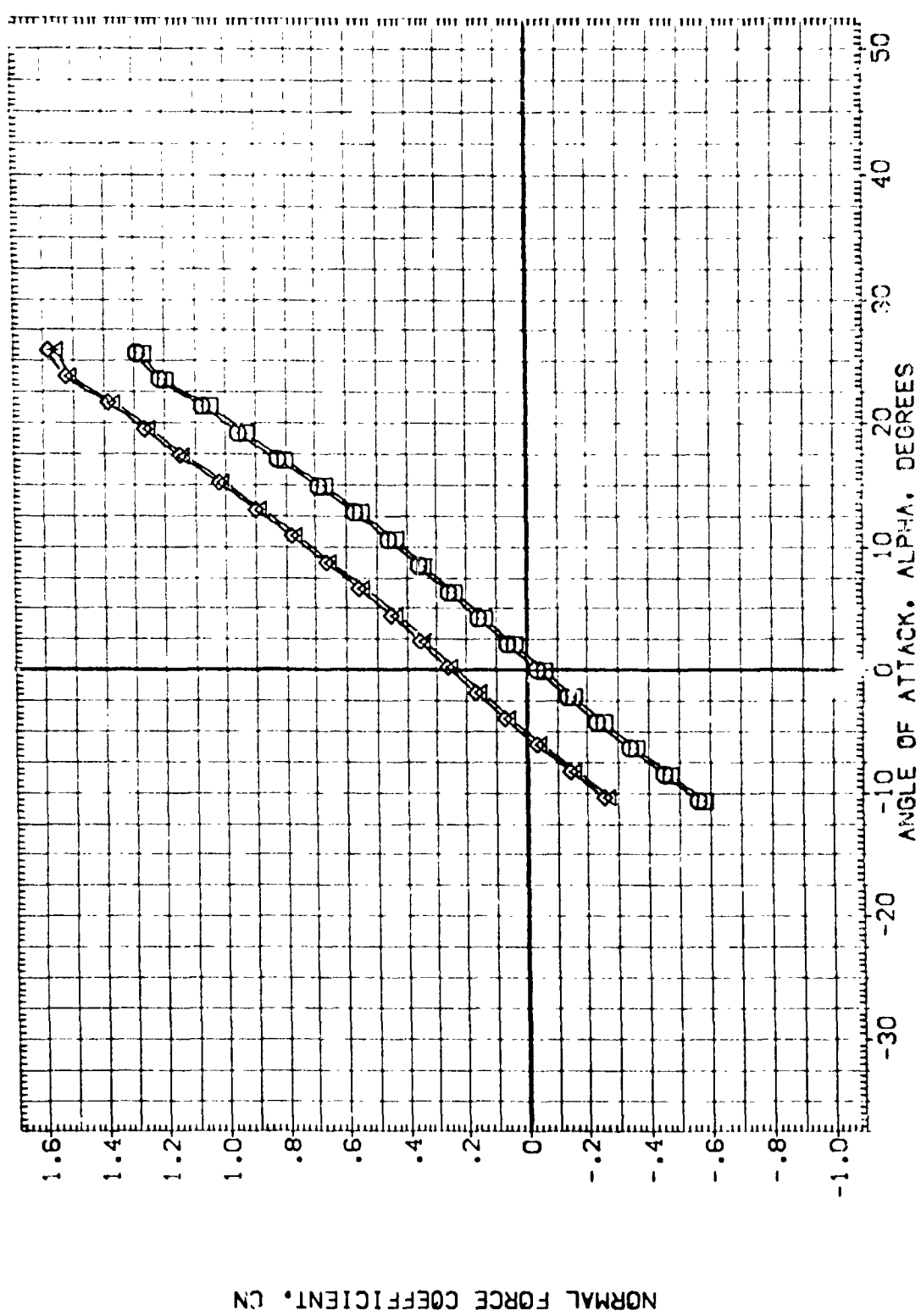


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AILRON	REFERENCE INFORMATION
[AF8004]	0A119A 861C11F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8055]	0A119A 861C11F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8050]	0A119A 861C11F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	BREF 936.6800 INCHES
[AF8055]	0A119A 861C11F 2-5 V124E48V19R15X29	.000	.000	25.000	.000	XREF 1076.4800 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0405

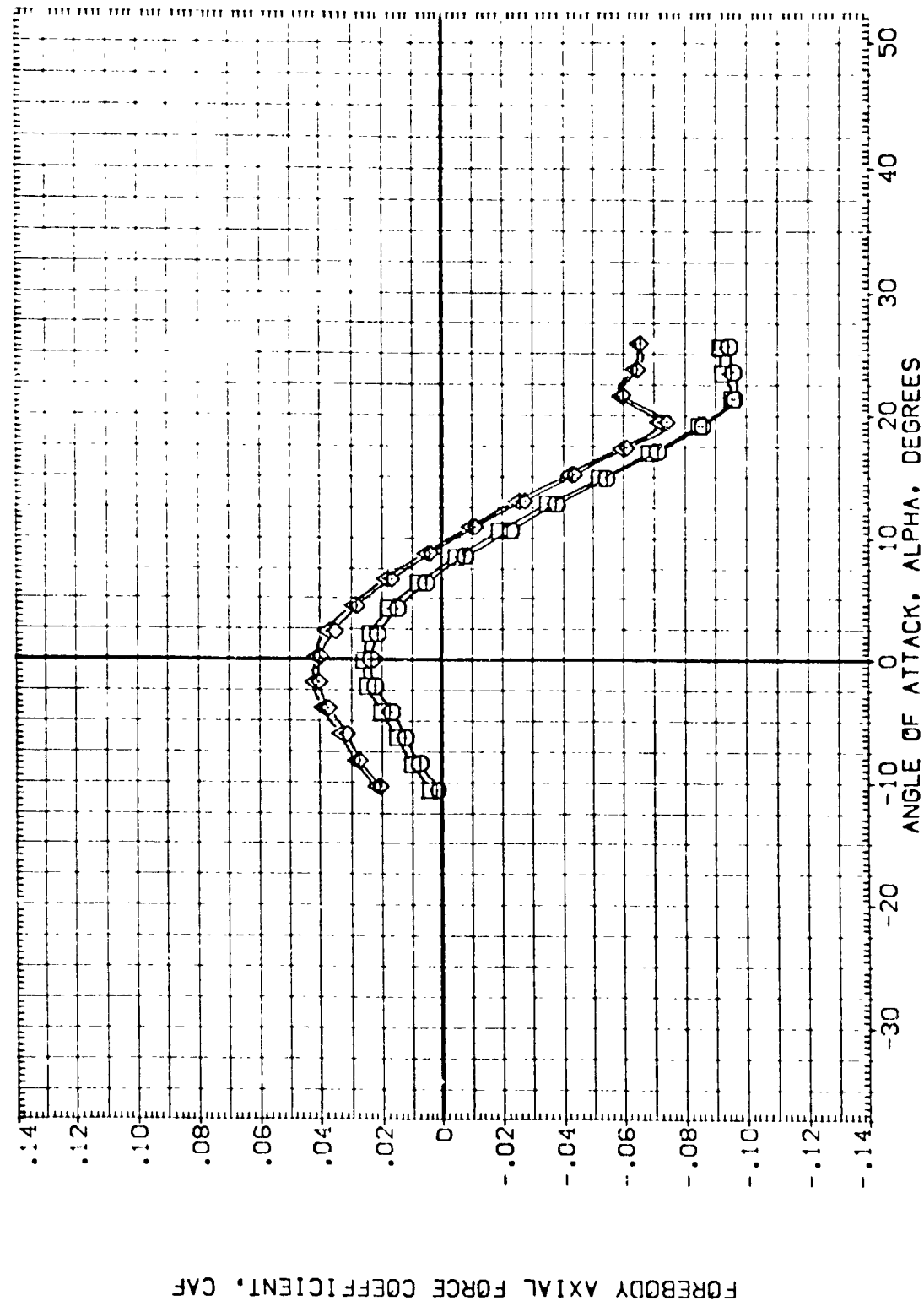


FIG 23 BODY FLAP EFFECTIVENESS

CA)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDRK	AILRON	REFERENCE INFORMATION
[AF8004]	CA119A B6C11F12M5V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
[AF8055]	CA119A B6C11F12M5V124E48V19R15X29	.000	.000	25.000	.000	LREF 474.8100 INCHES
[AF8050]	CA119A B6C11F12M5V124E48V19R15X29	15.000	-12.000	25.000	.000	BREF 936.8800 INCHES
[AF8056]	CA119A B6C11F12M5V124E48V19R15X29	15.000	-12.000	25.000	.000	XMRP 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE 375.0000

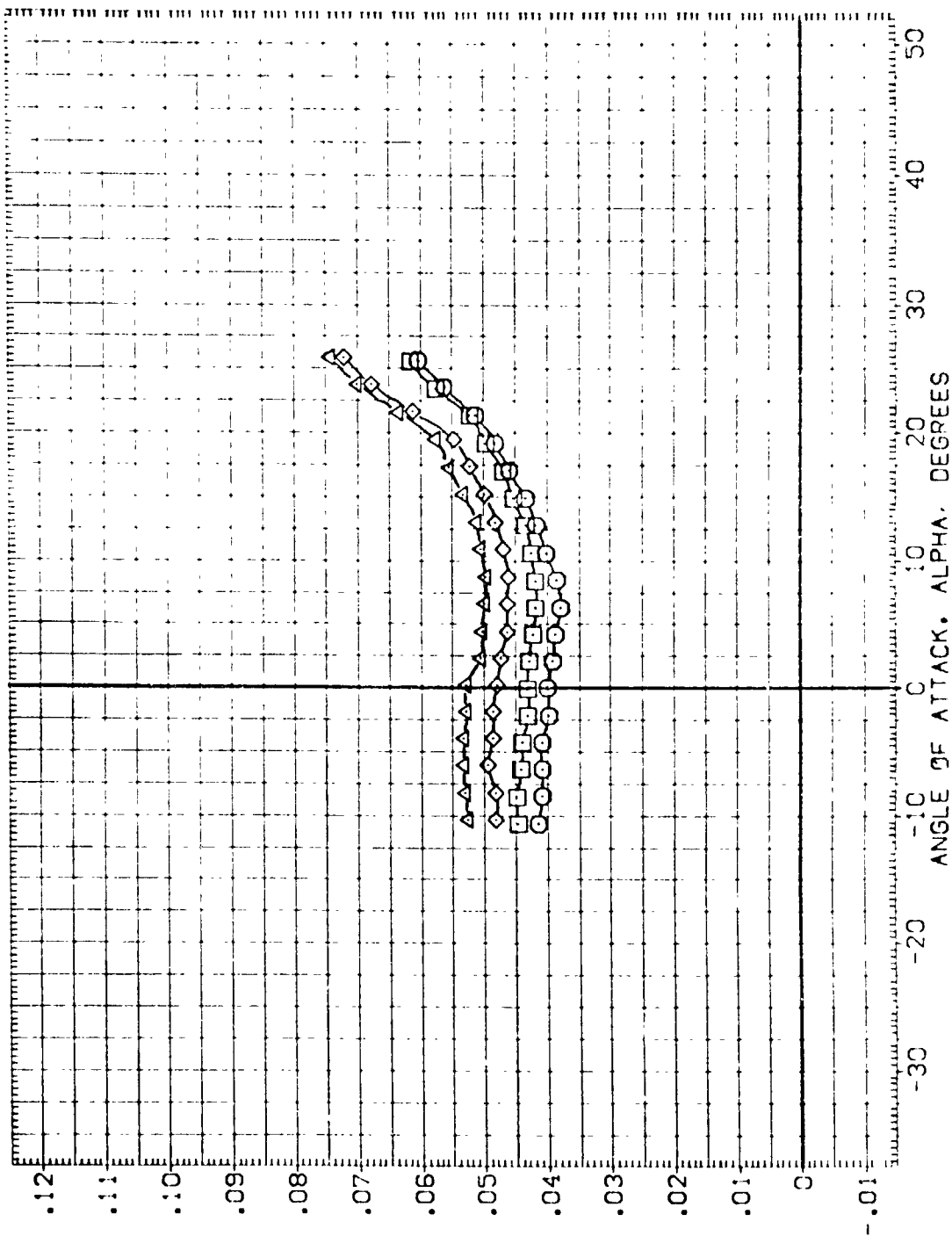


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8004)	DA119A B61C11F12S1V124E48V19R15X29	.000	.000	25.000	.000	SREF 2890.0100 SQ.FT.
(AF8055)	DA119A B61C11F12S1V124E48V19R15X29	.000	-12.000	25.000	.000	LREF 474.8100 INCHES
(AF8050)	DA119A B61C11F12S1V124E48V19R15X29	15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8056)	DA119A B61C11F12S1V124E48V19R15X29	15.000	-12.000	25.000	.000	XREF 1076.4800 INCHES
					ZREF .0000 INCHES	
					SCALE 375.0000 INCHES	
					SCALE .0405	

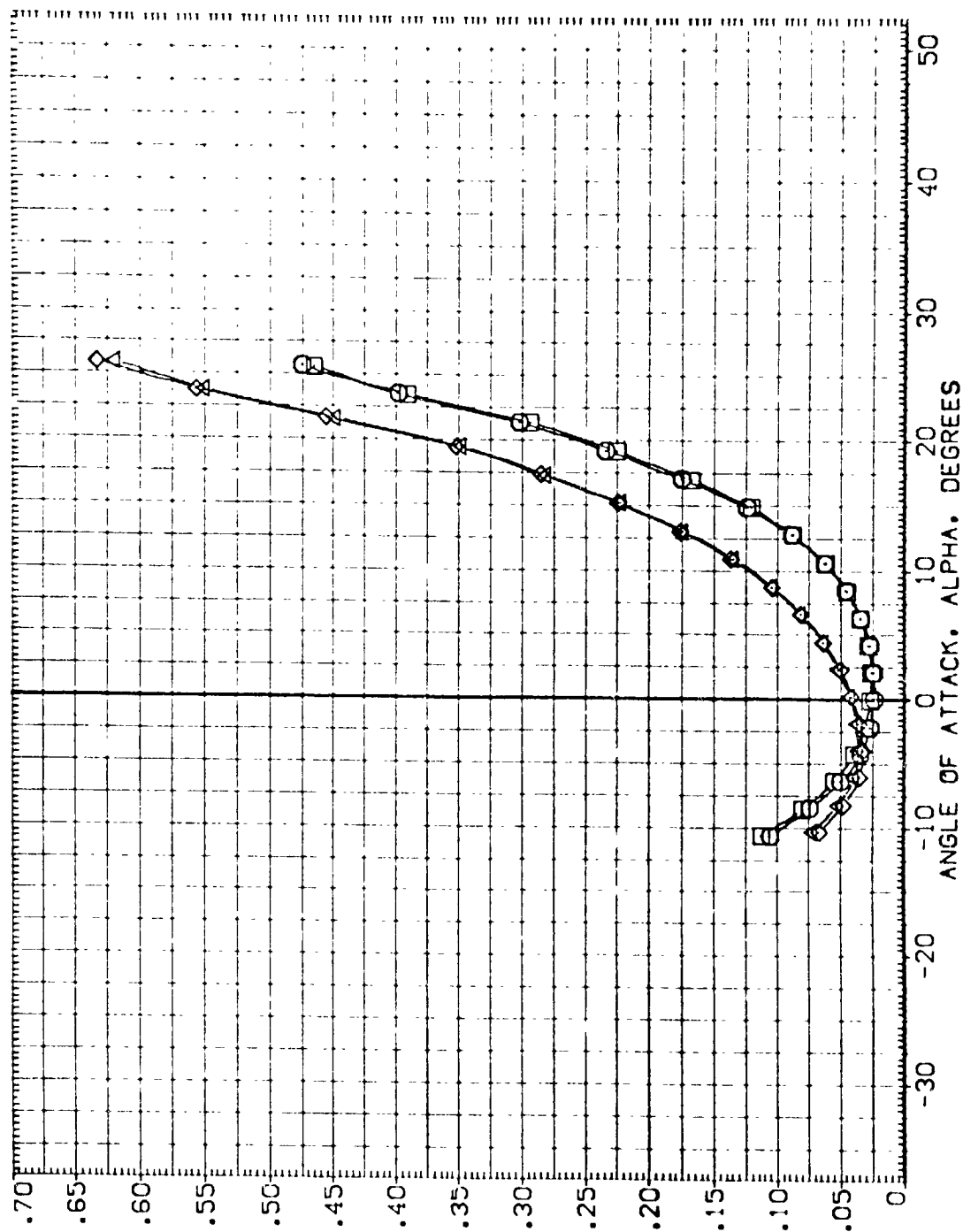


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8004)	0A119A B61C11F12V51V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8055)	0A119A B51C11F12V51V124E48V19R15X29	.000	-12.000	25.000	.000	LREF 474.8100 INCHES
(AF8050)	0A119A B61C11F12V51V124E48V19R15X29	15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8056)	0A119A B61C11F12V51V124E48V19R15X29	15.000	-12.000	25.000	.000	XMRB 1076.4800 INCHES
						YMRB .0000 INCHES
						ZMRB 375.0000 INCHES
						SCALE .0105

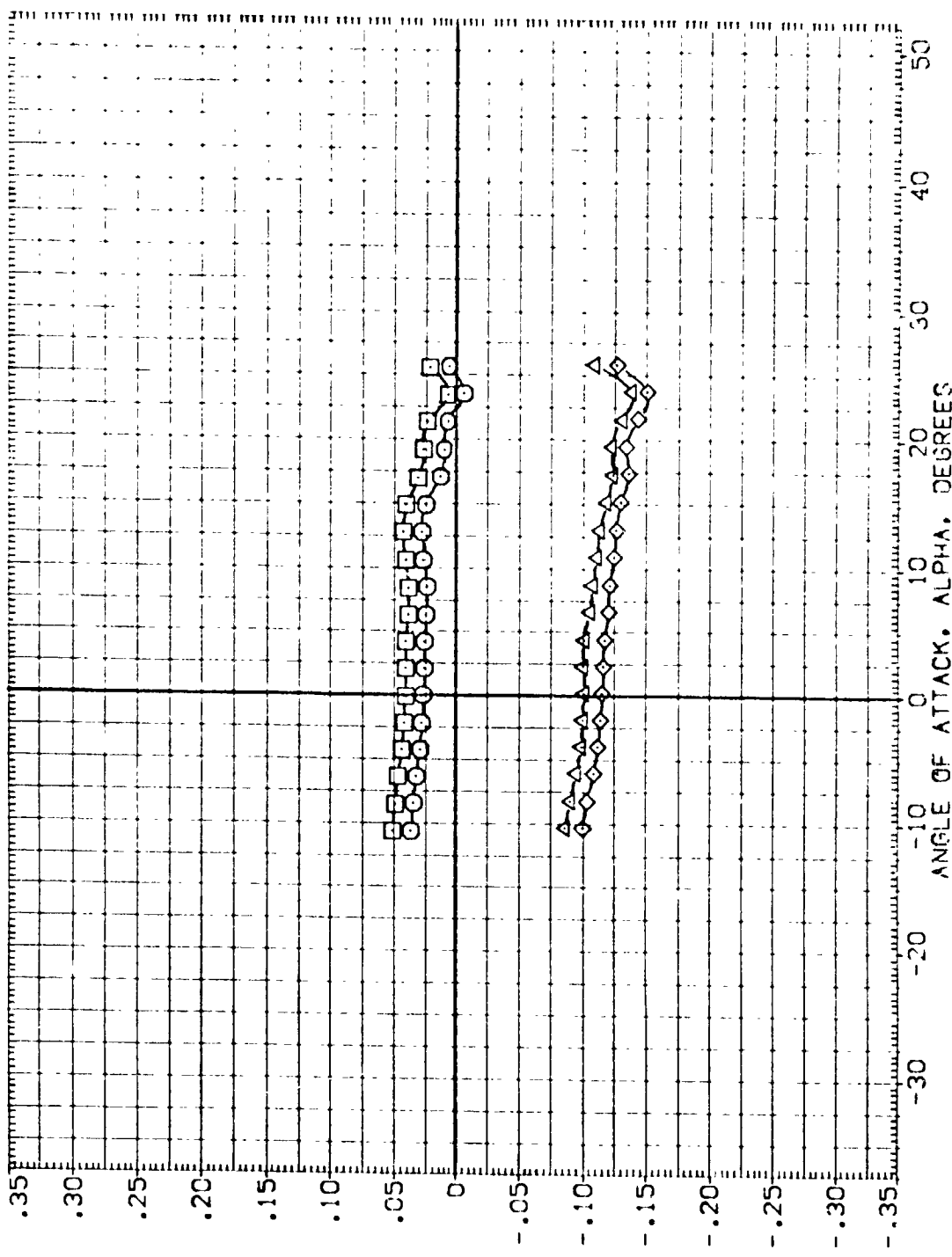


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILRON	REFERENCE INFORMATION
(AF8004)	0A119A B61C1 F12-51V124E48V19R15X29	.00	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8005)	0A119A B61C1 F12-51V124E48V19R15X29	.000	-12.000	25.000	.000	LREF 474.19100 NCES
(AF8006)	0A119A B61C1 F12-51V124E48V19R15X29	15.000	.000	25.000	.000	BREF 936.6800 NCES
(AF8007)	0A119A B61C1 F12-51V124E48V19R15X29	15.000	-12.000	25.000	.000	XMRP 776.4800 NCES
						YMRP .0000 NCES
						ZMRP 375.0000 NCES
						SCALE .0405 SCALE

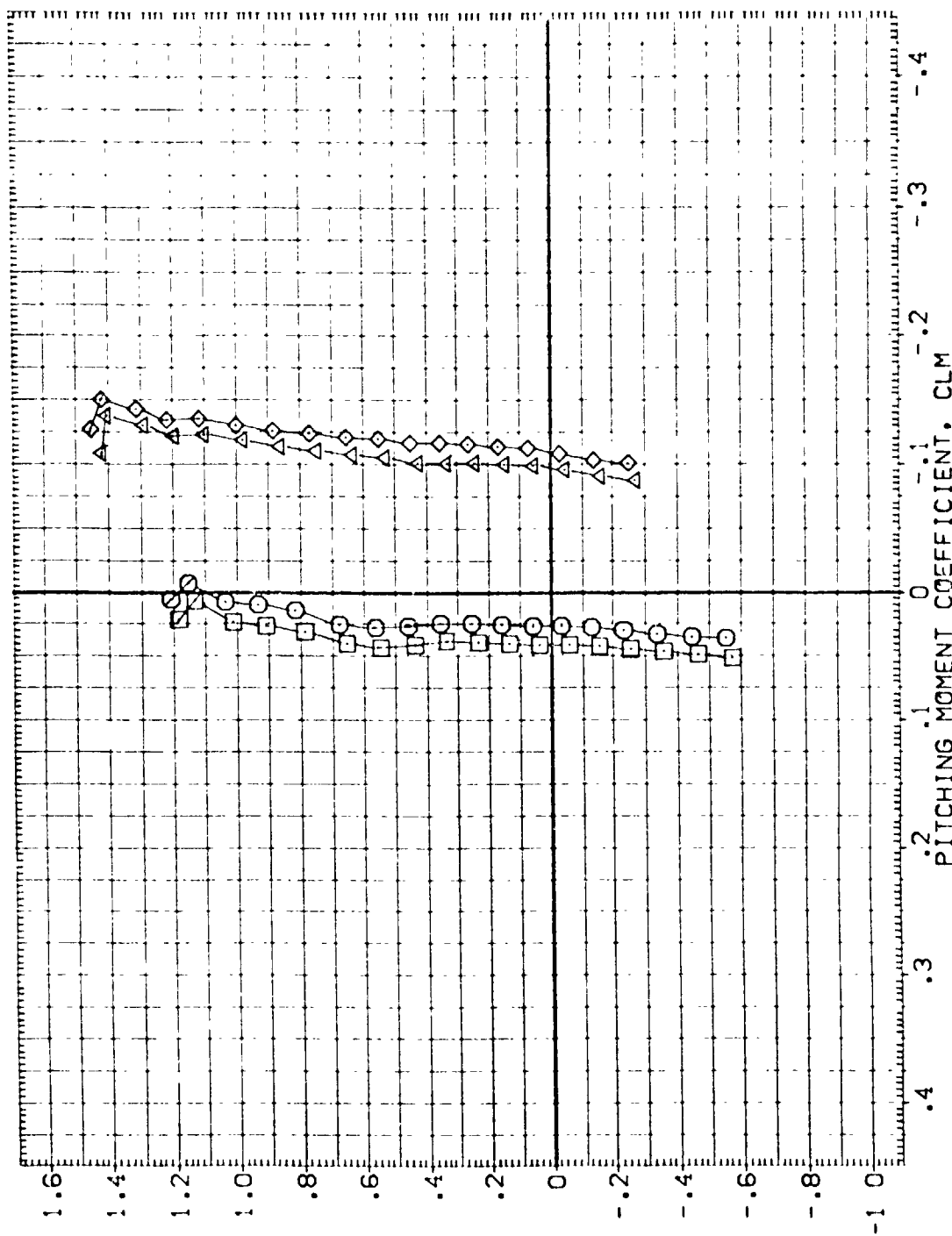


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AIRLON	REFERENCE INFORMATION
AF8004	GA119A B61C1F12M5V124E18V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
AF8005	GA119A B61C1F12M5V124E18V19R15X29	.000	-12.000	25.000	.000	LREF 474.8100 INCHES
AF8006	GA119A B61C1F12M5V124E18V19R15X29	15.000	.000	25.000	.000	BREF 936.6800 INCHES
AF8007	GA119A B61C1F12M5V124E18V19R15X29	15.000	-12.000	25.000	.000	XREF 1076.4900 INCHES
						YREF 375.0000 INCHES
						SCALE .0405 INCHES

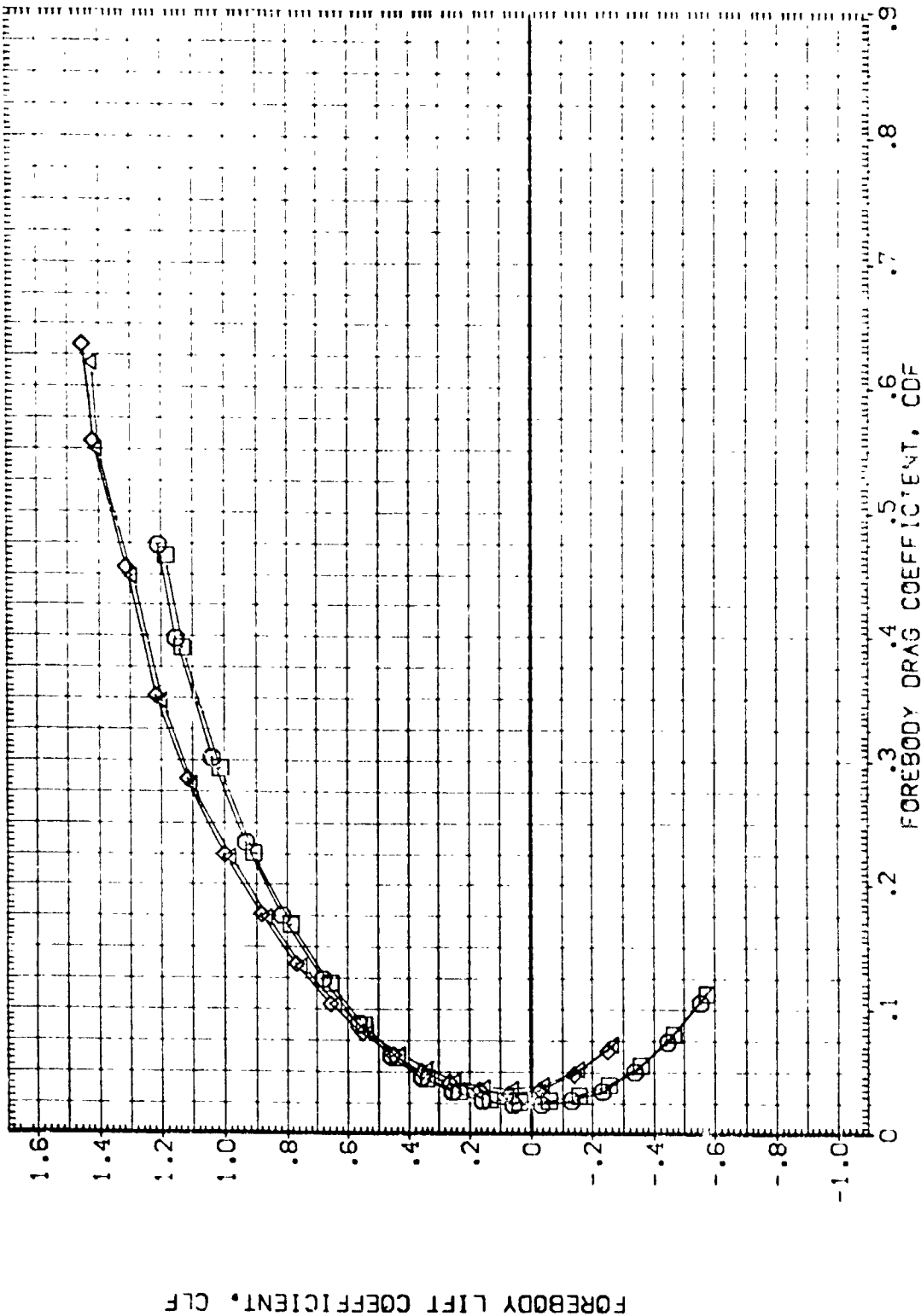


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPDBRK	AIRLON	REFERENCE INFORMATION
(AF8004)	CA119A B61C1F125V124E48V19R15X29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8055)	CA119A B61C1F125V124E48V19R15X29	.000	-12.000	25.000	.000	LREF 474.8100 INCHES
(AF8050)	CA119A B61C1F125V124E48V19R15X29	15.000	.000	25.000	.000	BREF 936.6800 INCHES
(AF8056)	CA119A B61C1F125V124E48V19R15X29	15.000	-12.000	25.000	.000	VREF 1076.4800 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0105 INCHES

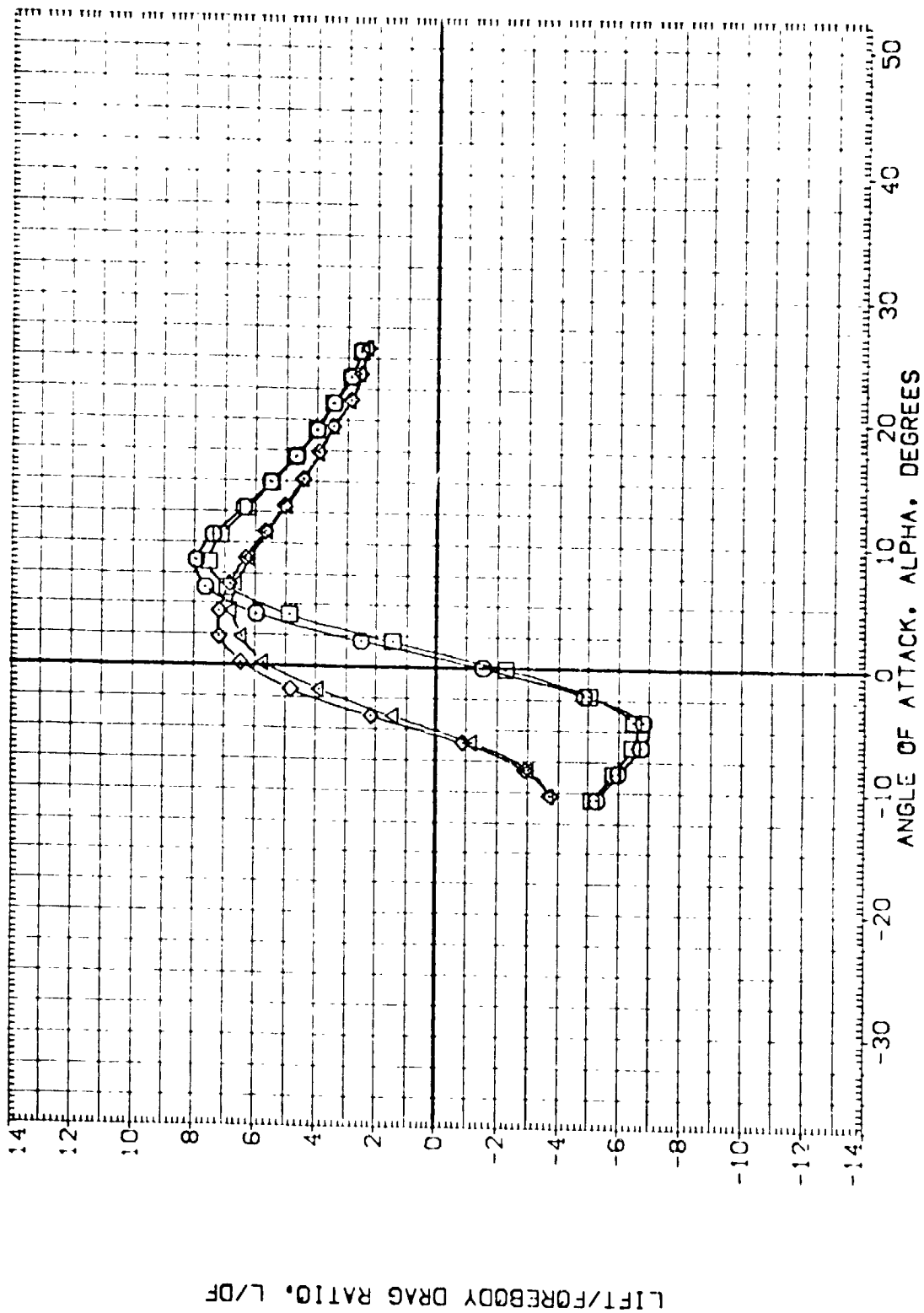
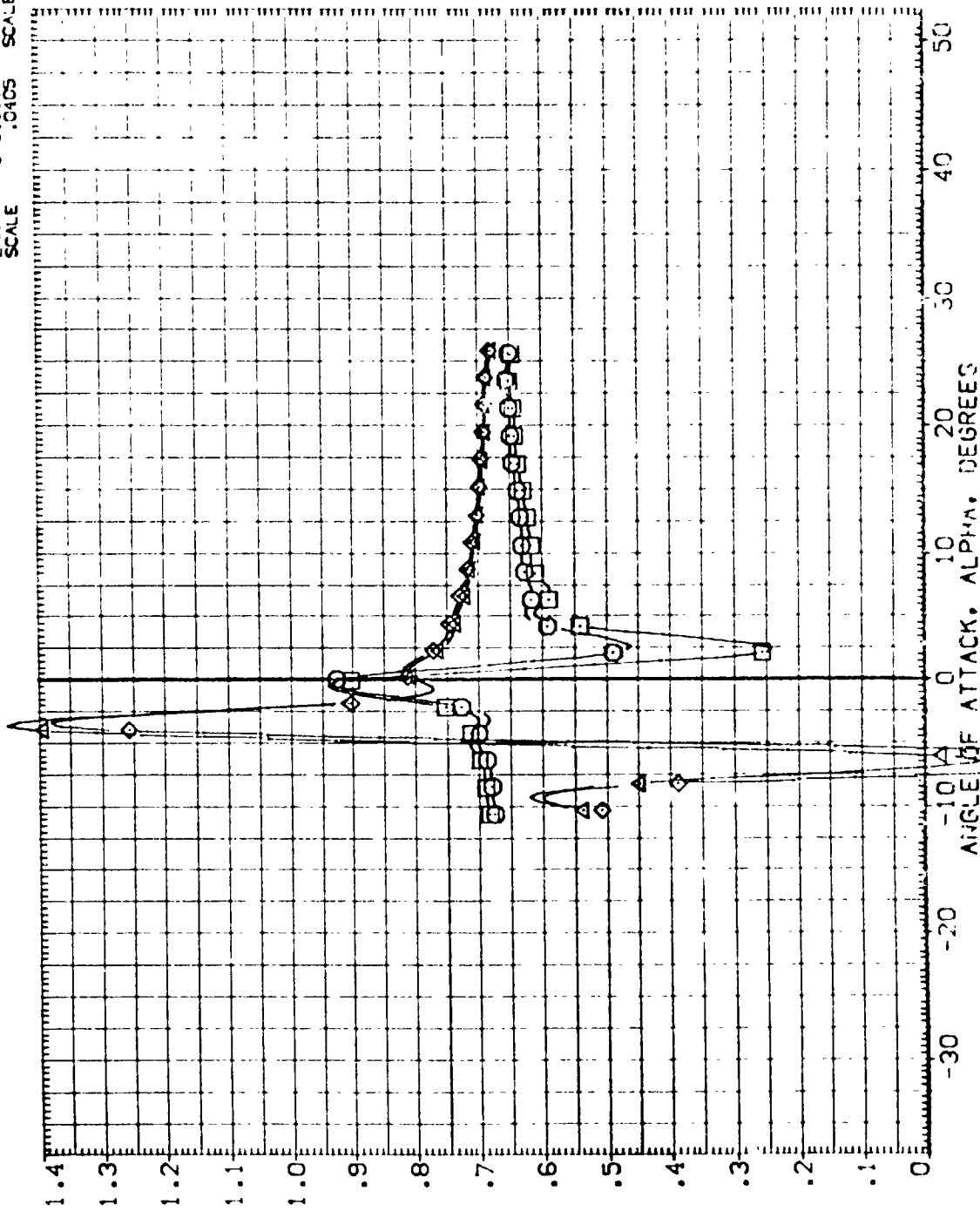


FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	BOFLAP	SPOBRK	AILERON	REFERENCE INFORMATION
(AF8004)	0A119A B61C11F12151V124E48V1SR1SX29	.000	.000	25.000	.000	SREF 2690.0100 SQ.FT.
(AF8055)	0A119A B61C11F12151V124E48V1SR1SX29	.000	-12.000	25.000	.000	LREF 474.8100 INCHES
(AF8050)	0A119A B61C11F12151V124E48V1SR1SX29	15.000	.000	25.000	.000	BREF 936.5800 INCHES
(AF8056)	0A119A B61C11F12151V124E48V1SR1SX29	15.000	-12.000	25.000	.000	XREF 1076.4800 INCHES
						YREF 375.0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0405



LONGITUDINAL CENTER OF PRESSURE LOCATION, XCP/L

FIG 23 BODY FLAP EFFECTIVENESS

(A)MACH = .26

APPENDIX
TABULATED SOURCE DATA

Tabulations of plotted data are available on request from
Data Management Services

DATE 22 OCT 74 TABULATED SOURCE DATA - GALL19A

(H80001) (09 JUL 74)

GALL19A 061C11F12H31W124E46V10R13120

REFERENCE DATA

WREF = 2690.0100 80.FT. XMRP = 1070.4800 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BREF = 936.8600 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0400 SCALE

PARAMETRIC DATA

BETA = .000 DDPLAP = .000
 ELEVOM = .000 AILROM = .000
 RUDDER = .000 SPDRK = .25.000

RUN NO 1/ 0 RN/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	COF	CLM	CM	CAF	CYN	CBL	CT	KCP/L	CAB
.260	-10.670	-.55120	.10330	.03310	-.56120	.00140	-.00060	.00040	-.00100	.67500	.04112
.260	-6.340	-.44330	.07330	.03370	-.43120	.00833	-.00060	.00010	.00000	.67900	.04163
.260	-6.390	-.33490	.04950	.03140	-.33640	.01196	-.00040	.00020	.00000	.64600	.04073
.260	-4.270	-.23080	.03390	.02900	-.23260	.01662	-.00030	.00030	.00000	.69400	.04033
.260	-2.140	-.13320	.02660	.02730	-.13410	.02190	-.00030	.00040	.00100	.72700	.04012
.260	-.090	-.03830	.02340	.02630	-.03830	.02341	-.00030	.00030	.00100	.90400	.03977
.260	2.070	.05830	.02350	.02370	.03910	.02140	-.00030	.00030	.00100	.49100	.03911
.260	4.210	.13980	.02600	.02320	.13730	.01453	-.00060	.00040	.00200	.39300	.03494
.260	6.300	.25350	.03260	.02400	.23560	.00456	-.00090	.00030	.00400	.61700	.03937
.260	8.440	.33740	.04500	.02330	.36010	-.00793	-.00070	.00030	.00400	.62400	.03459
.260	10.560	.43750	.06240	.02600	.46120	-.02263	-.00090	.00020	.00500	.63100	.03947
.260	12.710	.56350	.08790	.02770	.56910	-.03630	-.00090	.00000	.00600	.63400	.04152
.260	14.850	.67760	.12340	.02510	.64660	-.05435	-.00090	.00000	.00700	.63800	.04314
.260	17.010	.81030	.17320	.01370	.82560	-.07149	-.00110	.00000	.00900	.64600	.04592
.260	19.170	.92820	.23150	.01020	.93270	-.04621	-.00100	-.00110	.01000	.64400	.04427
.260	21.340	1.03600	.30100	.00700	1.07450	-.09677	.00010	-.00090	.01000	.64900	.03159
.260	23.480	1.14950	.39320	-.00360	1.21100	-.09745	.00050	.00100	.01000	.65300	.03631
.260	25.600	1.20270	.47030	.00620	1.26790	-.09359	.00060	-.00070	.01400	.65000	.06120
GRADIENT		.04557	-.00090	-.00043	.04596	-.00022	-.00001	.00001	.00019	-.02110	-.00020

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GALL19A 861C11F12M51W12E40V19191329

(RF0004) (09 JUL 74)

REFERENCE DATA

WREF = 2690.0100 30.FT. ZMRP = 1076.4000 INCHES
LREF = 474.0100 INCHES YMRP = .0000 INCHES
BREF = 936.0000 INCHES ZMRP = 373.0000 INCHES
SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = .000 BOFLAP = .000
ELEVON = .000 AILEON = .000
RUDDER = .000 SPOBER = 23.000

RUN NO. 4/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYN	CBL	CT	ACP/L	CAB
.260	-10.640	-.33340	.10310	.03630	-.56330	.00107	-.00030	.00030	-.00100	.67300	.04144
.260	-8.310	-.44480	.07410	.03500	-.45090	.00749	-.00030	.00020	-.00100	.69000	.04091
.260	-6.370	-.33480	.04960	.03250	-.33830	.01217	-.00040	.00020	.00000	.64700	.04079
.260	-4.230	-.23040	.03370	.02990	-.23230	.01660	-.00030	.00030	.00000	.69900	.04086
.260	-2.140	-.13220	.02720	.02790	-.13320	.02230	-.00060	.00040	.00000	.72900	.03969
.260	-.030	-.03620	.02340	.02690	-.03620	.02339	-.00060	.00030	.00100	.92300	.03946
.260	2.090	.03920	.02350	.02650	.06010	.02136	-.00060	.00040	.00100	.48900	.03903
.260	4.220	.15670	.02630	.02610	.15430	.01479	-.00070	.00030	.00300	.59100	.03868
.260	6.320	.23480	.03350	.02470	.23700	.00531	-.00080	.00040	.00300	.61600	.03776
.260	8.460	.35620	.04530	.02410	.36090	-.00783	-.00090	.00020	.00500	.62700	.03431
.260	10.570	.43890	.06230	.02670	.46250	-.02287	-.00100	.00020	.00500	.63000	.04003
.260	12.740	.56500	.06870	.02800	.57060	-.03904	-.00110	.00010	.00600	.63400	.04131
.260	14.870	.67900	.12410	.02560	.69810	-.05432	-.00110	.00020	.00700	.63900	.04329
.260	17.030	.81370	.17480	.01400	.82920	-.07124	-.00100	-.00010	.00800	.64300	.04341
.260	19.210	.93120	.23360	.01040	.95630	-.08563	-.00110	-.00090	.01000	.64900	.04403
.260	21.340	1.03600	.30200	.00750	1.07690	-.09645	.00000	-.00060	.00900	.64900	.03121
.260	23.330	1.13420	.39830	-.00640	1.21720	-.09540	.00030	.00130	.01000	.65400	.03620
.260	25.620	1.20710	.47400	.00390	1.29340	-.09463	.00030	-.00060	.01400	.65000	.06044
GRADIENT	.04561	-.00067	-.00042	-.00042	.04603	-.00022	-.00004	.00302	.00033	-.02154	-.00024

(RF0003) (09 JUL 74)

GALLI9A 861C11F12M51W124E7V19R132D

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVOM = -40.000 AILFCM = .000
FUODER = .000 SPDBRA = 23.000

REFERENCE DATA

WREF = 2690.0100 SQ.FT. WMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.8800 INCHES ZMRP = 373.0000 INCHES
SCALE = .0405 SCALE

RUN NO. S/O RW/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CTM	CBL	CT	KCP/L	CAS
.260	-11.090	-.98810	.29860	.22120	-1.02710	.10290	.00160	.00240	-.00600	.73100	.04037
.260	-8.970	-.90640	.25010	.22870	-.93430	.10358	.00080	-.00230	-.00700	.74200	.03756
.260	-6.830	-.81090	.21070	.23270	-.83020	.11270	-.00010	.00020	-.00300	.75300	.03750
.260	-4.700	-.70040	.17340	.22610	-.71230	.11342	-.00040	-.00030	-.00400	.76900	.03739
.260	-2.590	-.58240	.14390	.21410	-.58830	.11744	-.00030	-.00230	-.00400	.78600	.03775
.260	-.430	-.46620	.12120	.20390	-.46720	.11768	.00040	-.00040	-.00400	.81200	.03794
.260	3.420	-.25960	.08390	.19190	-.25340	.10104	-.00020	-.00070	-.00100	.93000	.03660
.260	5.920	-.16500	.07770	.19190	-.15610	.09434	-.00050	-.00110	.00000	1.10400	.03793
.260	8.040	-.07220	.07370	.19360	-.06090	.08512	-.00070	-.00130	.00100	1.82100	.03913
.260	10.140	.02160	.07870	.19830	.03540	.07366	-.00080	-.00150	.00200	-1.40900	.03681
.260	12.310	.11700	.08700	.20350	.13290	.06010	-.00120	-.00120	.00400	.04400	.04144
.260	14.440	.21830	.10600	.20670	.23760	.04819	-.00070	-.00140	.00600	.33200	.04236
.260	16.570	.32480	.13240	.20860	.34910	.03422	-.00050	-.00140	.00300	.43200	.04362
.260	18.690	.41260	.16840	.21620	.44490	.02732	.00000	-.00110	.00600	.47300	.04724
.260	20.830	.49470	.21330	.22670	.53820	.02339	-.00030	-.00320	.01000	.49700	.05067
.260	23.010	.61930	.27610	.21820	.67400	.01204	-.00090	-.00990	.01200	.53300	.05337
.260	25.130	.70510	.33360	.21660	.79010	.00256	.00340	-.00490	.00300	.54900	.05363
GRADIENT		.03026	-.00902	-.00323	.05218	-.00223	-.00001	.00000	.00042	.02970	.00007

DATE 22 OCT 74 TABULATED SOURCE DATA - GALLI9A

(RFR0006) (09 JUL 74)

GALLI9A 061C11F12M51W124E48V10R151229

REFERENCE DATA

REF = 2890.0100 SQ.FT. AMRP = 1076.4000 INCHES
REF = 474.8100 INCHES YMRP = .0000 INCHES
REF = 936.8800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 SDFLAP = .000
ELEVOM = -40.000 AILROM = .000
RUDDER = .000 SPOSRK = 25.000

RUN NO. 6/ 0 RN/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CTN	CBL	CT	KCP/L	CAP
.260	-11.130	-.99190	.29750	.22260	-1.03070	.10036	.00070	.00350	-.00300	.73100	.04034
.260	-9.030	-.91800	.25160	.23400	-.94810	.10449	-.00060	-.00040	-.00100	.74300	.03633
.260	-6.990	-.82530	.21260	.23830	-.84480	.11209	.00040	-.00040	-.00100	.75500	.03620
.260	-4.750	-.71420	.17420	.23170	-.72620	.11437	-.00010	-.00010	-.00200	.76900	.03556
.260	-2.630	-.59930	.14270	.22110	-.60380	.11493	.00040	-.00120	-.00100	.78500	.03591
.260	-.490	-.48270	.11650	.21050	-.48370	.11246	-.00050	-.00030	-.00200	.81200	.03636
.260	1.630	-.37400	.09860	.20160	-.37100	.10928	.00040	-.00030	-.00100	.85200	.03692
.260	3.760	-.26340	.08410	.19440	-.25930	.10143	-.00070	.00010	.00100	.92400	.03769
.260	5.920	-.16980	.07760	.19440	-.16090	.09479	.00040	-.00020	.00000	1.09600	.03642
.260	7.990	-.07630	.07450	.19710	-.06720	.08469	.00040	-.00020	.00100	1.73100	.03450
.260	10.140	.01220	.07790	.20210	.02370	.07434	.00060	-.00010	.00300	-2.23400	.03371
.260	12.270	.10810	.08700	.20750	.12410	.06206	-.00070	.00000	.00300	.03700	.04031
.260	14.390	.21040	.10360	.21040	.22960	.04433	.00090	-.00160	.00600	.31400	.04300
.260	16.530	.31640	.13150	.21270	.34270	.03535	.00050	-.00040	.00600	.42300	.04500
.260	18.670	.41000	.16620	.21930	.44160	.02618	.00060	-.00100	.00400	.46300	.04636
.260	20.760	.49820	.20700	.23060	.52990	.02037	.00030	.00030	.00400	.49100	.05024
.260	22.920	.56410	.25360	.24240	.61920	.01592	.00260	.00240	.00300	.50400	.05431
.260	25.030	.63710	.30320	.24360	.70360	.00516	.00330	.00240	.00300	.52300	.05640
GRADIENT		.03137	-.00956	-.00369	.03331	-.00190	-.00094	.00003	.00023	.02414	.00013

DATE 22 OCT 74

TABULATED SOURCE DATA - GA119A

PAGE 3

GA119A 861C.1F12H31W124E48V19R15X29

(RF8009) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.8400 INCHES ZMRP = 375.0000 INCHES
SCALE = .0403 SCALE

BETA = .000
ELEVOM = -40.000
RUDDER = .000

80FLAP = .000
AILRON = .000
SPDBRK = 25.000

PARAMETRIC DATA

RUN NO. 9/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-11.120	-.99170	.29870	.22280	-1.03070	.10187	.00130	.00400	-.00400	.73100	.04563
.260	-9.010	-.92080	.25410	.23520	-.94930	.10664	.00000	-.00240	-.00300	.74300	.03631
.260	-6.900	-.82460	.21140	.23740	-.84400	.11083	-.00080	-.00090	-.00100	.75500	.03603
.260	-4.740	-.71160	.17300	.23000	-.72330	.11363	-.00030	-.00110	-.00100	.76900	.03602
.260	-2.600	-.59880	.14300	.22120	-.60470	.11565	-.00080	-.00190	-.00100	.74600	.03624
.260	-.450	-.48040	.11630	.20960	-.48140	.11313	-.00060	-.00170	-.00200	.41200	.03664
.260	1.670	-.36770	.09830	.19970	-.36470	.10905	-.00030	-.00120	-.00100	.45300	.03644
.260	3.790	-.25990	.08460	.19230	-.25370	.10166	-.00080	-.00090	.00000	.93100	.03733
.260	5.900	-.16660	.07770	.19310	-.15770	.09445	-.00060	-.00070	.00100	1.10200	.03779
.260	8.010	-.07740	.07610	.19810	-.06610	.08619	-.00060	-.00070	.00100	1.74400	.03743
.260	10.140	.01370	.07690	.20160	.02730	.07522	-.00040	-.00070	.00200	-2.03700	.03940
.260	12.280	.10900	.06730	.20710	.12520	.06228	-.00020	-.00040	.00300	.04300	.04116
.260	14.390	.21060	.10400	.21080	.22980	.04939	-.00100	-.00160	.00600	.31400	.04331
.260	16.510	.31690	.13030	.21190	.34100	.03510	-.00070	-.00170	.00700	.42300	.04596
.260	18.660	.41210	.16800	.21920	.44420	.02730	-.00030	-.00110	.00400	.47100	.04757
.260	20.830	.49340	.20940	.22690	.53750	.01960	.00030	-.00010	.00400	.49500	.05036
.260	22.910	.57220	.25670	.23690	.62700	.01364	.00260	.00220	.00500	.51100	.05427
.260	25.010	.64340	.30600	.24140	.71430	.00440	.00430	.00260	.00000	.52700	.05584
GRADIENT		.05175	-.00901	-.00378	.05369	-.00190	-.00001	.00007	.00019	.02470	.00017

DATE 22 OCT 74

TABULATED SOURCE DATA - CA119A

PAGE 6

CA119A B61C11F12M31W124E48V19R13129

(RF6010) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BRFP = 938.6800 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0403 SCALE

BETA = .000 BDFLAP = .000
 ELEVOM = -30.000 AILFOM = .000
 RUDDER = .000 SFOBER = 25.000

PARAMETRIC DATA

RUN NO. 10 / 0 RM/L = 1.63 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	COF	CLM	CN	CAF	CYN	CBL	CT	KCP/L	CAP
.260	-11.130	-.99810	.28860	.22830	-1.03120	.07085	-.00140	.00720	.00000	.73300	.03694
.260	-8.990	-.90640	.22040	.23330	-.92970	.07390	-.00060	.00160	.00000	.74300	.03355
.260	-6.840	-.79210	.17810	.23150	-.80770	.06246	-.00120	-.00040	.00000	.75700	.03252
.260	-4.700	-.66220	.14300	.22550	-.69160	.06661	-.00130	-.00110	.00000	.77200	.03366
.260	-2.560	-.55020	.11340	.20920	-.55470	.06664	-.00160	-.00220	.00000	.79200	.03425
.260	-.430	-.44200	.09420	.20190	-.44270	.06090	-.00150	-.00040	.00100	.82000	.03505
.260	1.670	-.34330	.06130	.19910	-.34090	.06142	-.00110	.00190	.00200	.86700	.03534
.260	3.900	-.24230	.07040	.19510	-.23710	.06641	-.00060	.00230	.00000	.95400	.03594
.260	5.930	-.15020	.06480	.19840	-.14270	.06002	-.00060	.00240	.00000	1.15400	.03521
.260	8.040	-.05990	.06220	.19950	-.05060	.07001	-.00070	.00210	.00200	2.10300	.03655
.260	10.160	.03250	.06570	.20420	.04380	.06894	-.00060	.00130	.00300	-1.06900	.03724
.260	12.290	.12650	.07340	.21060	.13920	.04477	-.00070	.00160	.00300	.09300	.03945
.260	14.400	.21410	.08730	.21990	.22910	.03130	-.00090	.00170	.00400	.29900	.04115
.260	16.510	.30720	.11030	.22700	.32590	.01844	-.00060	.00140	.00400	.39300	.04349
.260	18.650	.40490	.14230	.23210	.42920	.00539	-.00120	.00040	.00700	.45300	.04616
.260	20.790	.49140	.18010	.24580	.51400	-.00249	-.00090	.00110	.00400	.47600	.04814
.260	22.930	.56500	.23240	.24830	.62930	-.01393	.00010	.00000	.00400	.50400	.04971
.260	25.040	.68310	.29270	.24110	.74280	-.02444	.00240	-.00120	.01000	.53200	.05355
.260	GRADIENT	.04953	-.00717	-.00253	.05110	-.00052	.00009	.00046	.00001	.03319	.00014



DATE 22 OCT 74 TABULATED SOURCE DATA - GALL19A

GALL19A 861C11F12M51W124E47V19R15X29

(RF9011) (09 JUL 74)

REFERENCE DATA

BREF = 2690.0100 SQ.FT. XMRP = 1078.4800 INCHES
LREF = 474.6100 INCHES YMRP = .0000 INCHES
BREF = 938.8800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 80FLAP = .000
ELEVOM = -30.000 ALLRCH = .000
RUDDER = .000 SPODER = 25.500

RUN NO. 11/ 0 RN/L = 1.05 GRADIENT INTERVAL = -0.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-11.120	-.99330	.26680	.22740	-1.02650	.07217	-.00150	.00490	.00100	.73300	.03697
.260	-9.990	-.90360	.22150	.23550	-.92750	.07745	-.00040	.00050	.00000	.74500	.03365
.260	-6.840	-.79250	.17910	.23230	-.80820	.06332	-.00120	-.00110	.00100	.75700	.03355
.260	-4.730	-.68690	.14590	.22650	-.69860	.06870	-.00100	-.00070	.00000	.77200	.03345
.260	-2.590	-.56940	.11810	.21930	-.57410	.09223	-.00070	.00000	.00000	.79200	.03437
.260	-.420	-.44060	.09480	.20210	-.44130	.09153	-.00120	-.00040	.00100	.82000	.03561
.260	1.710	-.33460	.08110	.19630	-.33230	.09115	-.00090	-.00040	.00000	.86900	.03574
.260	3.610	-.23860	.07080	.19330	-.23150	.08650	-.00090	-.00030	.00100	.93500	.03659
.260	5.910	-.14540	.06500	.19470	-.13900	.07966	-.00040	.00000	.00100	1.17100	.03594
.260	8.060	-.05230	.06420	.19740	-.04270	.07095	-.00070	-.00010	.00100	2.35000	.03543
.260	10.160	.03800	.06640	.20260	.04910	.05866	-.00070	-.00030	.00300	-.86300	.03759
.260	12.300	.12790	.07540	.21100	.14100	.04641	-.00040	.00040	.00500	.10100	.03926
.260	14.410	.22560	.09090	.21520	.24120	.03191	-.00100	-.00040	.00600	.32300	.04172
.260	16.540	.31920	.11380	.22330	.33840	.01815	-.00070	-.00030	.00500	.40900	.04373
.260	18.670	.41420	.14720	.22660	.43950	.00682	-.00090	-.00140	.00400	.46000	.04510
.260	20.800	.49090	.18540	.24260	.52480	-.00100	-.00070	-.00170	.01000	.48200	.04754
.260	22.940	.59210	.23720	.24370	.63780	-.01235	.00000	-.00150	.01000	.51100	.04967
.260	25.090	.68870	.29790	.23900	.75000	-.02231	.00300	-.00270	.01100	.53400	.05314
GRADIENT		.05115	-.00753	-.00336	.05275	-.00094	.00001	.00004	.00009	.03406	.00021

PARAMETRIC DATA

BETA	=	.000	EDFLAP	=	.000
ELEVON	=	-30.000	ALRON	=	.000
RUDDER	=	.000	SPURBK	=	25.000

RUN NO. 12/ 0 $\Delta N/L = 1.09$ GRADIENT INTERVAL = -6.00/ 6.00

[illegible]

0A119A 001C11F12M51W124E40V10015120

REFERENCE DATA
 REF = 2000.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.8100 INCHES XMRP = .0000 INCHES
 BREF = 936.8800 INCHES XMRP = 373.0000 INCHES
 SCALE = .0405 SCALE
 BETA = .000 BDFLAP = .000
 ELEVON = -20.000 AILPON = .000
 RUDDER = .000 SPDRK = 23.000

PARAMETRIC DATA

RUN NO. 13/ 0 RM/L = 1.05 GRADIENT INTERVAL = -0.00/ 0.00

MACH	ALPHA	CL	CLW	CN	CAF	CIN	CBL	CI	XCP/L	CAB
.280	-11.040	-.92430	.21730	-.94890	.03023	-.00080	-.00010	-.00100	.72900	.02976
.280	-8.930	-.84930	.21230	-.86800	.03993	-.00080	.00010	.00000	.74200	.03102
.280	-6.790	-.74480	.21260	-.75330	.04376	-.00060	.00000	.00000	.75500	.03209
.280	-4.630	-.61690	.20000	-.62310	.05183	-.00020	.00090	-.00100	.77000	.03299
.280	-2.530	-.51290	.19500	-.51370	.05486	.00020	.00110	-.00100	.79100	.03229
.280	-.390	-.40340	.18650	-.40360	.05337	-.00030	.00020	.00000	.82300	.03303
.280	1.730	-.30290	.18550	-.30140	.05323	-.00030	.00020	.00000	.87600	.03298
.280	3.860	-.19320	.17950	-.19020	.05176	-.00030	.00180	.00000	.99900	.03223
.280	5.990	-.10490	.16210	-.10080	.04515	-.00090	.00040	.00100	1.31600	.03173
.280	8.120	-.00830	.15380	-.00340	.03497	-.00080	.00040	.00200	20.31800	.03271
.280	10.210	.08500	.14730	.09050	.02330	-.00070	.00050	.00300	-.10900	.03359
.280	12.350	.18360	.14260	.18970	.00793	-.00080	.00050	.00400	.27800	.03743
.280	14.490	.29250	.13930	.30060	-.00384	-.00070	.00040	.00500	.41500	.03942
.280	16.610	.40990	.10080	.42160	-.02061	-.00060	.00100	.00300	.49600	.04181
.280	18.790	.53080	.14340	.54870	-.03513	-.00040	.00120	.00700	.52600	.04367
.280	20.940	.63130	.19050	.63770	-.04756	-.00040	.00030	.00900	.54500	.04634
.280	23.100	.74700	.25320	.78720	-.05847	.00040	.00170	.00900	.56500	.04784
.280	.82180	.82180	.51870	.87920	-.06261	.00250	.00300	.00300	.57400	.05184
GRADIENT	.04869	-.00626	-.00167	.04964	-.00036	-.00006	-.00001	.00017	.04586	-.00009

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 ORIGINAL PAGE IS POOR

DATE 22 OCT 74

TABULATED SOURCE DATA - CAL119A

(RF0016) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 926.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVON = -20.000 AILEON = .000
RUDDER = .000 SPODEK = 23.000

RUN NO. 16/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CT	XCP/L	CAP
.260	-11.040	-.92320	.21790	.19990	-.94990	.03656	-.00060	-.00030	-.00100	.72900	-.02953
.260	-8.930	-.85010	.17460	.21300	-.86690	.04050	-.00070	.00000	.00000	.74200	.03073
.260	-6.760	-.74340	.13440	.21320	-.75400	.04598	-.00030	-.00010	-.00100	.75600	.03191
.260	-4.640	-.61600	.10200	.19970	-.62230	.05181	-.00020	.00070	-.00100	.77000	.03322
.260	-2.510	-.50370	.07740	.19300	-.50670	.05529	.00030	.00150	-.00200	.79200	.03255
.260	-.390	-.40000	.05910	.18770	-.40040	.05641	-.00030	.00040	.00000	.82400	.03292
.260	1.730	-.30100	.04680	.18320	-.29950	.05593	-.00040	.00030	.00000	.87900	.03242
.260	3.850	-.20330	.03730	.18310	-.20040	.05089	-.00050	.00010	.00100	.99400	.03246
.260	5.960	-.10740	.03330	.18240	-.10330	.04451	-.00070	.00020	.00200	1.30100	.03162
.260	8.100	-.00990	.03400	.18400	-.00500	.03511	-.00060	.00020	.00300	14.05400	.03206
.260	10.210	.08450	.03860	.18760	.09000	.02308	-.00070	.00020	.00400	-.11400	.03342
.260	12.330	.18090	.04860	.19290	.18710	.00890	-.00060	.00040	.00500	.27200	.03665
.260	14.480	.28980	.06450	.19470	.29770	-.00612	-.00060	.00030	.00600	.41100	.03954
.260	16.630	.41060	.10060	.19130	.42220	-.02109	-.00050	.00070	.00600	.44300	.04173
.260	18.790	.52970	.14280	.18770	.54750	-.03546	-.00060	.00100	.00700	.52500	.04404
.260	20.930	.62850	.19030	.19160	.65500	-.04675	-.00030	.00000	.00800	.54400	.04624
.260	23.090	.74700	.25520	.18430	.78720	-.05822	.00060	.00150	.00900	.56500	.04815
.260	25.240	.84150	.32710	.17800	.90060	-.06293	.00240	-.00160	.01100	.57900	.05194
GRADIENT	.04775	-.00641	-.00641	-.00160	.04672	-.00067	-.00037	-.00009	.00032	.04442	-.00010

QAL19A 861C11F12M51W124E47V19R13X29

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BREF = 936.6600 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = .000 80FLAP = .000
 ELEVON = -20.000 AILERON = .000
 RUDDER = .000 SPOBRK = 25.000

RUN NO. 17/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-11.030	-9.2510	.21760	.19920	-.94970	.03645	-.00070	-.00080	.00000	.72900	.03093
.260	-8.920	-.84920	.17420	.21340	-.86590	.04044	-.00080	-.00020	.00000	.74200	.03143
.260	-6.800	-.74670	.13660	.21370	-.75760	.04719	-.00060	-.00020	.00000	.75500	.03200
.260	-4.630	-.62430	.10300	.20330	-.63060	.05221	-.00040	.00090	.00000	.77000	.03247
.260	-2.510	-.51660	.07880	.19820	-.51950	.05614	.00000	.00180	.00100	.79200	.03307
.260	-.380	-.40630	.06080	.19090	-.40870	.05806	-.00070	.00030	.00000	.82400	.03297
.260	1.740	-.30600	.04720	.18600	-.30440	.05659	-.00080	.00000	.00000	.87900	.03339
.260	3.860	-.20680	.03850	.18580	-.20380	.05244	-.00080	.00000	.00100	.94100	.03265
.260	5.950	-.10660	.03410	.18260	-.10250	.04502	-.00060	.00030	.00100	1.30800	.03124
.260	8.100	-.01000	.03410	.18460	-.00310	.03523	-.00060	.00047	.00200	13.42100	.03143
.260	10.180	.08260	.03820	.18900	.08910	.02306	-.00070	.00030	.00400	-.13700	.03380
.260	12.320	.17880	.04850	.19420	.18310	.00922	-.00060	.00030	.00400	.26600	.03676
.260	14.450	.28740	.06800	.19620	.29330	-.00541	-.00030	.00040	.00500	.40700	.03949
.260	16.630	.40960	.10110	.19270	.42140	-.02033	-.00040	.00060	.00500	.44300	.04139
.260	18.770	.52720	.14110	.18910	.54460	-.03602	-.00030	.00080	.00700	.52400	.04479
.260	20.930	.62840	.19000	.19250	.63480	-.04709	-.00040	-.00030	.00800	.54300	.04629
.260	23.080	.74240	.25390	.18730	.78260	-.05750	.00090	.00150	.00700	.56400	.04743
.260	25.250	.84100	.32730	.17960	.90530	-.06265	.00290	-.00140	.01100	.57400	.05190
.260	GRADIENT	.04881	-.00647	-.00194	.04976	-.00065	-.00003	-.00010	.00015	.04445	-.00012

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DATE 22 OCT 74

TABULATED SOURCE DATA - C0119A

PAGE 12

C0119A 861C11F12M31U124E47V19R13X29

(RF9010) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 80. FT. XMRP = 1076.4800 INCHES
LMRF = 474.8100 INCHES YMRP = .0000 INCHES
BRF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 9DFLAP = .000
ELEVON = -15.000 ALLCON = .000
RUDDER = .000 SPODRK = 25.000

RUN NO. 18/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAP
.260	-10.970	-.85310	.18630	.16870	-.87310	.02072	-.00080	-.00030	.00000	.72300	.03333
.260	-8.840	-.76230	.14440	.17840	-.77340	.02546	-.00090	.00000	.00000	.73500	.03311
.260	-6.710	-.65910	.10930	.17540	-.66740	.03175	-.00090	.00000	.00000	.74900	.03331
.260	-4.580	-.54800	.08060	.16960	-.55070	.03679	-.00030	.00040	.00000	.76400	.03366
.260	-2.430	-.43340	.05840	.16270	-.43330	.03965	-.00060	.00070	.00000	.77900	.03363
.260	-.330	-.32870	.04440	.15750	-.32990	.04253	-.00040	.00040	.00000	.79000	.03393
.260	1.790	-.22820	.03430	.15440	-.22700	.04146	-.00090	.00030	.00100	.90200	.03391
.260	3.920	-.13000	.02820	.15260	-.12780	.03705	-.00100	.00040	.00200	1.09200	.03399
.260	6.020	-.03250	.02620	.15230	-.02960	.02930	-.00090	.00050	.00200	2.54400	.03337
.260	8.130	.06690	.02980	.15250	.07040	.02001	-.00090	.00040	.00300	-.14400	.03303
.260	10.280	.16290	.03590	.15640	.16680	.00629	-.00090	.00030	.00400	.30600	.03337
.260	12.410	.26380	.04990	.15970	.27030	-.00933	-.00070	.00030	.00400	.43400	.03403
.260	14.570	.38010	.07340	.15960	.36690	-.02265	-.00060	.00030	.00500	.50000	.03935
.260	16.720	.50110	.11030	.15510	.51170	-.03432	-.00090	.00060	.00600	.54000	.04193
.260	18.900	.62240	.15700	.15140	.63970	-.05309	-.00090	.00010	.00700	.56500	.04414
.260	21.030	.72890	.20990	.15150	.75360	-.06567	-.00040	-.00030	.00900	.57400	.04606
.260	23.190	.84680	.28100	.14260	.86910	-.07518	.00070	.00170	.00900	.59300	.04847
.260	25.320	.91450	.34780	.14850	.97340	-.07673	.00200	.00240	.00600	.59600	.05307
GRADIENT		.04863	-.00607	-.00166	.04964	.00010	-.00006	-.00002	.00024	.03621	.00004

PARAMETRIC DATA

BETA = .000 BOFLAP = .000
ELEVOM = -15.000 AIRCON = .000
FOODER = .000 SPDBRK = 25.000

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES ZMRP = .0000 INCHES
PREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

RUN NO. 19/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYM	CBL	CY	KCP/L	CAB
.260	-10.970	-.85270	.16680	.16840	-.07270	.02113	-.00100	-.00040	.00000	.72300	.03342
.260	-8.830	-.76110	.14450	.17550	-.77430	.02596	-.00100	-.00010	.00000	.73500	.03306
.260	-6.700	-.65370	.10870	.17480	-.66390	.03146	-.00090	.00010	.00000	.74900	.03396
.260	-4.570	-.54580	.08050	.16820	-.55030	.03676	-.00060	.00030	.00000	.76400	.03345
.260	-2.440	-.43530	.05950	.16230	-.43740	.03993	-.00030	.00040	.00000	.77800	.03376
.260	-.310	-.32700	.04400	.15690	-.32720	.04223	-.00100	.00000	.00100	.79200	.03419
.260	1.600	-.22730	.03430	.15410	-.22610	.04153	-.00100	.00010	.00200	.80300	.03421
.260	3.920	-.12840	.02850	.15240	-.12620	.03729	-.00100	.00020	.00200	1.09600	.03396
.260	6.040	-.03130	.02610	.15190	-.02830	.02933	-.00090	.00020	.00300	2.62100	.03365
.260	8.170	.06720	.02930	.15290	.07070	.01953	-.00090	.00020	.00300	-1.14300	.03349
.260	10.280	.16410	.03560	.15680	.16780	.00572	-.00040	.00010	.00400	.30400	.03641
.260	12.410	.26390	.05030	.15990	.27030	-.00402	-.00070	.00000	.00400	.43400	.03749
.260	14.570	.37930	.07560	.15940	.38610	-.02216	-.00060	.00000	.00600	.50000	.03927
.260	16.720	.50350	.11140	.15370	.51430	-.03919	-.00070	.00030	.00700	.58200	.04141
.260	18.890	.62290	.15690	.15040	.64020	-.03319	-.00040	.00010	.00700	.56300	.04403
.260	21.030	.72980	.20990	.13100	.75630	-.06607	-.00030	-.00030	.00900	.57400	.04646
.260	23.220	.85060	.28260	.14150	.89320	-.07564	.00070	.00140	.00400	.59300	.04446
.260	25.310	.91620	.34830	.14320	.97720	-.07691	.00250	.00250	.00600	.59700	.03237
GRADIENT		.04914	-.00604	-.00188	.04995	.00013	-.00006	-.00002	.00024	.03669	.00002

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

DATE 22 OCT 74 TABULATED SOURCE DATA - GAT119A

GAT119A B01C11F12M31W124E46V19R15129

(RFB020) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

BETA = .000 BDFLAP = .000
ELEVCON = -15.000 AILCON = .000
RUDDER = .000 SPDRFA = 25.000

PARAMETRIC DATA

RUN NO. 20/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYN	CSL	CY	XCP/L	CAP
.260	-10.970	-.84840	.18590	.16660	-.86820	.02105	-.00110	-.00090	.00000	.72200	.03392
.260	-8.840	-.75740	.14390	.17330	-.77060	.02376	-.00110	-.00040	.00000	.73400	.03373
.260	-6.700	-.65280	.10850	.17270	-.66100	.03152	-.00090	-.00010	.00000	.74900	.03449
.260	-4.580	-.54350	.08060	.16690	-.54820	.03693	-.00070	.00000	.00000	.76400	.03427
.260	-2.460	-.43240	.05900	.16110	-.43460	.04043	-.00070	.00060	.00000	.78900	.03393
.260	-.300	-.32550	.04470	.15590	-.32570	.04301	-.00110	.00020	.00200	.82400	.03409
.260	1.800	-.22520	.03430	.15290	-.22400	.04142	-.00110	.00030	.00200	.90300	.03504
.260	3.910	-.12800	.02880	.15170	-.12570	.03753	-.00120	.00040	.00200	1.03600	.03432
.260	6.050	-.03220	.02630	.15230	-.02920	.02564	-.00090	.00040	.00300	2.56700	.03339
.260	8.150	.06680	.02840	.15250	.07020	.01869	-.00100	.00040	.00400	-.14700	.02440
.260	10.280	.16260	.03640	.15620	.16690	.00846	-.00090	.00030	.00500	.30600	.03343
.260	12.420	.26550	.05010	.16020	.27010	-.00812	-.00090	.00010	.00500	.43300	.03743
.260	14.540	.37810	.07480	.15990	.38480	-.02260	-.00070	.00010	.00800	.49900	.03359
.260	16.710	.50290	.11100	.15370	.51320	-.03422	-.00060	.00060	.00700	.54100	.04149
.260	18.860	.62150	.15590	.15040	.63960	-.05344	-.00090	.00020	.00400	.56500	.04414
.260	21.060	.73020	.21000	.15040	.75690	-.06843	-.00030	-.00020	.00900	.57400	.04653
.260	23.180	.84990	.28090	.14180	.89190	-.07646	.00090	.00190	.00900	.59300	.04495
.260	25.300	.91650	.34820	.14570	.97740	-.07695	.00210	.00240	.00800	.59700	.05256
.260	GRADIENT	.74888	-.00604	-.00192	.04970	.00011	-.00007	.00002	.00024	.03662	.00006

DATE 22 OCT 74 TABULATED SOURCE DATA - GALL19A

(REF0021) (09 JUL 74)

GALL19A B61C11F12M51M124E46V19R13Z20

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVOM = 10.000 AILFOM = .000
RUDDER = .000 SFOBER = 23.000

REFERENCE DATA

SREF = 2490.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0403 SCALE

RUN NO. 21/ 0 RM/L = 1.03 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CTM	CBL	CT	KCP/L	CAB
.260	-10.490	-.35710	.08030	-.03710	-.36580	.01401	-.00030	.00910	-.00100	.39400	.04603
.260	-8.350	-.25620	.05620	-.05650	-.26200	.02032	-.00020	.00060	.00000	.37200	.04579
.260	-6.230	-.15200	.04170	-.03750	-.15560	.02503	-.00040	.00030	.00000	.31600	.04576
.260	-4.080	-.05070	.03310	-.05870	-.05300	.02949	-.00060	.00000	.00000	.24400	.04517
.260	-1.990	.04460	.03240	-.06020	.04350	.03394	-.00090	.00040	.00000	1.16100	.04441
.260	.120	.14100	.03450	-.06130	.14110	.03424	-.00080	.00090	.00100	.81200	.04413
.260	2.230	.23460	.04000	-.06200	.23600	.03099	-.00090	.00090	.00200	.74400	.04359
.260	4.360	.33400	.04860	-.06430	.33670	.02312	-.00110	.00060	.00400	.72200	.04324
.260	6.490	.44410	.06320	-.06970	.44840	.01259	-.00120	.00030	.00500	.70900	.04300
.260	8.620	.55200	.08260	-.07310	.55610	-.00107	-.00120	-.00020	.00600	.69300	.04364
.260	10.760	.66050	.10920	-.07460	.66930	-.01601	-.00130	.00070	.00700	.64700	.04601
.260	12.900	.77080	.14370	-.07510	.78340	-.03206	-.00090	.00030	.00700	.64400	.04737
.260	15.060	.81850	.18650	-.07940	.90690	-.04946	-.00090	-.00030	.00900	.64300	.04939
.260	17.230	1.02150	.24860	-.09020	1.04930	-.06511	-.00110	-.00030	.00300	.64000	.05266
.260	19.370	1.12720	.31240	-.09020	1.16700	-.07926	-.00130	-.00030	.00300	.64000	.05671
.260	21.540	1.22240	.39950	-.09360	1.29370	-.07729	-.00070	-.00170	.00600	.67400	.06264
.260	23.640	1.33150	.50540	-.10290	1.42030	-.07674	-.00140	-.00450	.02200	.67400	.06749
.260	25.780	1.36810	.57510	-.04270	1.49210	-.07723	-.00000	-.00360	.01500	.67200	.06749
.260	GRADIENT	.04547	.00143	-.00062	.04606	-.00075	-.00005	.00004	.00047	.02551	-.00024

DATE 22 OCT 74

TABULATED SOURCE DATA - GALLI9A

PAGE 16

GALLI9A 861C11F12H51W124E40V19R151X29

(SF8024) (09 JUL 74)

REFERENCE DATA

SREF = 2680.0100 SQ.FT. YMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.8800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0403 SCALE

BETA = .000 BOFLAP = .000
ELEVON = 10.000 AILFON = .000
RUDDER = .000 SPODER = 25.000

PARAMETRIC DATA

RUN NO. 24/ 0 EN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYN	CB-	CY	ACP/L	CAP
.260	-10.470	-.35440	.07380	-.03410	-.36200	.00814	-.00020	.00030	-.00100	.59700	.04701
.260	-8.350	-.24570	.05190	-.03660	-.25060	.01573	-.00020	.00030	-.00100	.56400	.04677
.260	-6.180	-.13490	.05550	-.08050	-.13900	.02040	-.00050	.00070	.00000	.43000	.04651
.260	-4.110	-.03340	.02820	-.06340	-.03340	.02381	-.00070	.00060	.00000	.00000	.04591
.260	-1.330	.06610	.02750	-.06500	.06510	.02955	-.00050	.00040	.00000	1.51300	.04579
.260	.150	.16120	.03070	-.06620	.16130	.03026	-.00040	.00070	.00000	.40300	.04474
.260	2.250	.25750	.03610	-.06720	.25690	.02607	-.00080	.00070	.00200	.74400	.04470
.260	4.360	.35190	.04370	-.06450	.35440	.01845	-.00090	.00060	.00300	.72300	.04346
.260	6.490	.45330	.05930	-.07010	.45710	.00769	-.00090	.00070	.00400	.70400	.04335
.260	8.610	.55480	.07650	-.07040	.56030	-.00543	-.00100	.00060	.00500	.69400	.04354
.260	10.760	.65960	.10470	-.07050	.66760	-.02029	-.00110	.00070	.00600	.69100	.04433
.260	12.920	.77240	.13960	-.07270	.78410	-.03667	-.00130	.00050	.00700	.69000	.04614
.260	15.050	.88690	.18450	-.07610	.90630	-.05270	-.00150	.00060	.00900	.64300	.04769
.260	17.250	1.02080	.24470	-.08700	1.04740	-.06913	-.00150	.00010	.00900	.64200	.04932
.260	19.370	1.12790	.30930	-.08790	1.16660	-.08244	-.00160	.00020	.01000	.67900	.05251
.260	21.530	1.22790	.39460	-.09250	1.24700	-.08360	.00160	.00260	.00500	.67400	.05733
.260	23.640	1.33430	.49070	-.10270	1.42230	-.07931	-.00190	.00420	.02200	.67400	.06343
.260	25.600	1.37710	.57720	-.06590	1.49110	-.07964	-.00010	.00360	.01600	.67300	.06419
GRADIENT		.04546	.00207	-.00059	.04599	-.00042	-.00003	-.00000	.00034	.05704	-.00024

DATE 22 OCT 74 TABULATED SOURCE DATA - GALL19A

(RFA023) 09 JUL 74

GALL19A 061C11F12M51W124E7V19R13X20

PARAMETRIC DATA

BETA = .000 90FLAP = .000
ELEVOM = 10.000 AILEOM = .000
RUDDER = .000 SPODER = 25.000

REFERENCE DATA

WREF = 2890.0100 SQ.FT. WREF = 1076.4000 INCHES
LWREF = 474.6100 INCHES LWREF = .0000 INCHES
BREF = 936.6000 INCHES BREF = 375.0000 INCHES
SCALE = .0405 SCALE

RUN NO. 25/0 RN/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CTN	CSL	CN	KCP/L	CAP
.260	-10.480	-.35160	.07420	-.05460	-.35930	.00901	-.00020	.05030	-.00200	.59800	.04639
.260	-8.320	-.24290	.05200	-.03640	-.24790	.01631	-.00010	.05110	-.00100	.56400	.04591
.260	-6.180	-.13510	.03370	-.05940	-.13020	.02101	-.00030	.05070	.00000	.49200	.04624
.260	-4.050	-.03090	.02770	-.06290	-.03270	.02334	-.00060	.05070	.00000	.05500	.04613
.260	-1.960	.08400	.02750	-.06440	.06300	.02970	-.00070	.05090	.00100	1.02400	.04544
.260	.140	.16130	.03080	-.06600	.16140	.03020	-.00070	.05090	.00100	.40200	.04494
.260	2.240	.23770	.03640	-.06740	.25490	.02636	-.00090	.05090	.00200	.74400	.04424
.260	4.410	.33440	.04610	-.06860	.35690	.01478	-.00090	.05090	.00300	.72300	.04396
.260	6.520	.45540	.06000	-.07100	.45970	.00794	-.00100	.05060	.00400	.70900	.04347
.260	8.650	.56190	.07460	-.07340	.56750	-.00373	-.00110	.05070	.00500	.69900	.04423
.260	10.600	.66890	.10700	-.07340	.67710	-.02029	-.00120	.05060	.00600	.69200	.04443
.260	12.910	.77660	.14100	-.07490	.78970	-.03616	-.00120	.05050	.00600	.64700	.04593
.260	15.110	.89770	.18420	-.07930	.91570	-.05230	-.00160	.05010	.00900	.64300	.04646
.260	17.250	1.02570	.24620	-.08910	1.05260	-.06921	-.00160	.05010	.01000	.64300	.05303
.260	19.400	1.13340	.31090	-.09970	1.17230	-.08316	-.00140	.05010	.00400	.67400	.05619
.260	21.530	1.22740	.39650	-.09290	1.29730	-.04174	.00170	.05290	.02200	.67400	.06321
.260	23.700	1.33570	.50090	-.10310	1.42440	-.07457	-.00200	-.05450	.01600	.67200	.06426
.260	25.810	1.37340	.57630	-.08320	1.48730	-.07935	-.00010	-.05330	.00000	.67200	.06426
GRADIENT		.04556	.00219	-.05070	.04804	-.00079	-.00093	.00000	.00033	.05349	-.00026

DATE 10 OCT 74

TABULATED SOURCE DATA - QAL19A

PAGE 10

QAL19A 861C11F12M51W124E47V10815Z09

(860200) (09 JUL 74)

REFERENCE DATA

REF = 8000.0100 80.71. IMP = 1076.4800 INCHES
REF = 474.8100 INCHES IMP = .0000 INCHES
REF = 938.8800 INCHES IMP = 373.0000 INCHES
SCALE = .0475 SCALE

BETA = .000 BOFLAP = .000
ELEVON = -10.000 ATLROM = .000
BUDEEP = .000 SPDSFF = 25.000

PARAMETRIC DATA

RUN NO. 26V 0 RML = 1.05 GRADIENT INTERVAL = -0.00/ 0.00

MACH	ALPHA	CL	CDP	CLM	CN	CAF	CFM	CBL	CF	KCP/L	CAB
.200	-10.800	-1.7000	.13610	.12880	-.77840	.01003	-.00030	.00020	-.00200	.71300	.03543
.200	-8.720	-.93540	.11630	.13110	-.88940	.01900	-.00040	.00030	-.00100	.72400	.03527
.200	-6.390	-.33480	.08470	.12890	-.56070	.02033	.00000	.00020	-.00200	.73600	.03572
.200	-4.480	-.44400	.09030	.12490	-.44730	.02566	.00000	.00000	-.00200	.75400	.03543
.200	-2.320	-.33680	.04330	.12040	-.33810	.02963	-.00030	.00020	-.00100	.74300	.03587
.200	-.220	-.23670	.03310	.11710	-.23680	.03221	-.00030	.00010	.00000	.43400	.03580
.200	1.990	-.13840	.02610	.11320	-.13730	.03073	-.00030	.00030	.00000	.96000	.03572
.200	3.990	-.04240	.02290	.11470	-.04070	.02364	-.00030	.00030	.00030	1.84900	.03516
.200	6.130	.03800	.02320	.11440	.03910	.01709	-.00030	.00030	.00100	-.07100	.03502
.200	8.280	.15440	.02840	.11420	.13480	.00597	-.00060	.00040	.00200	.34400	.03526
.200	10.400	.23830	.04000	.11770	.23940	-.00697	-.00060	.00020	.00300	.44300	.03620
.200	12.320	.36100	.03620	.11920	.36100	-.02139	-.00070	.00020	.00400	.33100	.03773
.200	14.870	.47320	.08610	.11930	.48130	-.03710	-.00060	.00030	.00300	.36100	.03994
.200	16.610	.60270	.12600	.11120	.61340	-.03365	-.00040	.00030	.00600	.34300	.04233
.200	18.990	.72290	.17640	.10840	.74090	-.04843	-.00040	.00000	.00400	.39900	.04502
.200	21.160	.83410	.23490	.10440	.86270	-.04217	-.00020	-.00040	.01000	.60700	.04763
.200	23.320	.93290	.31370	.09360	.99930	-.04911	.00090	.00200	.00400	.61700	.05046
.200	25.410	1.01110	.34410	.10020	1.04080	-.04639	.00120	.00230	.00900	.61800	.05334
GRADIENT		.04744	-.00436	-.00121	.04803	.00007	-.00006	.00073	.00024	.09643	-.00006



(RF0027) (09 JUL 74)

GALL19A 861C11F12M31W124E6V19R15X29

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.0100 INCHES YMRP = .0000 INCHES
BREF = 936.6900 INCHES ZMRP = 373.0000 INCHES
SCALE = .0400 SCALE

BETA = .000 BDFLAP = .000
ELEVON = -10.000 AILRON = .000
RUDDER = .000 SPDSRK = 23.000

RUN NO. 21/0 RN/L = 1.65 GRADIENT INTERVAL = -6.07/ 6.00

MACH	ALPHA	CL	COF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.250	-10.860	-.76100	.15610	.12920	-.77680	.00985	-.00030	.00010	-.00100	.71300	.03542
.260	-8.740	-.66000	.11590	.13110	-.66990	.01426	-.00030	.00000	-.00100	.72400	.03606
.260	-6.810	-.55500	.08500	.12900	-.56110	.02033	-.00020	.00000	-.00200	.73600	.03568
.260	-4.463	-.44390	.06070	.12480	-.44730	.02604	-.00030	.00000	-.00100	.73400	.03545
.260	-2.360	-.34000	.04390	.12060	-.34150	.02977	-.00040	.00010	.00000	.74200	.03520
.260	-.220	-.23600	.03290	.11700	-.23620	.03203	-.00060	.00010	.00000	.63400	.03534
.260	1.870	-.13750	.02670	.11510	-.13650	.03123	-.00060	.00020	.00000	.96200	.03507
.260	4.010	-.04060	.02280	.11470	-.03890	.02363	-.00070	.00020	.00100	1.73500	.03532
.260	6.120	.05640	.02360	.11490	.03860	.01764	-.00090	.00030	.00200	-.06400	.03414
.260	8.240	.15730	.02920	.11440	.15970	.00340	-.00090	.00040	.00300	.34400	.03561
.260	10.370	.25300	.03930	.11750	.23790	-.00717	-.00090	.00010	.00400	.44400	.03649
.260	12.490	.36060	.05740	.11930	.36450	-.02198	-.00090	.00030	.00500	.53100	.03407
.260	14.670	.47620	.08610	.11840	.48250	-.03729	-.00070	.00060	.00500	.56100	.03944
.260	16.340	.60570	.12640	.11020	.61640	-.05446	-.00090	.00030	.00700	.54600	.04295
.260	19.000	.72700	.17770	.10590	.74530	-.06870	-.00090	.00010	.00900	.59900	.04437
.260	21.140	.83670	.23540	.10340	.86540	-.09226	-.00040	-.00030	.01000	.60400	.04797
.260	23.310	.93680	.31320	.09170	1.00350	-.09919	.00090	.00230	.00400	.61400	.05051
.260	25.430	1.01820	.38610	.09890	1.09530	-.09834	.00140	.00230	.00400	.61400	.05524
GRADIENT		.04767	-.00439	-.00121	.04827	.00003	-.00003	.00002	.00019	.10130	.00000

DATE 22 OCT 74

TABULATED SOURCE DATA - GAI119A

GAI119A 861C11F12M51W124E48V19R13X29

(REF030) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BREF = 936.6800 INCHES ZMRP = 373.0000 INCHES
 SCALE = .0405 SCALE

BETA = .000 BDFLAP = .000
 ELEVON = -10.000 AILRON = .000
 RUDDER = .000 SPDRK = 25.000

PARAMETRIC DATA

RUN NO. 30/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CEL	C*	XCP/L	CAB
.260	-10.670	-.75920	.13590	.12800	-.77500	.00981	-.00060	.00050	.00000	.71200	.03563
.260	-8.710	-.65650	.11570	.12970	-.66640	.01493	-.00030	-.00010	.00000	.72300	.03537
.260	-6.590	-.55150	.08450	.12790	-.55750	.02064	-.00030	.00000	-.00100	.73600	.03573
.260	-4.470	-.44240	.06060	.12360	-.44580	.02597	-.00020	.00000	-.00100	.75400	.03566
.260	-2.320	-.33400	.04290	.11940	-.33540	.02940	-.00030	.00020	.00000	.78300	.03552
.260	-.240	-.23440	.03270	.11600	-.23450	.03176	-.00060	.00000	.00000	.83400	.03560
.260	1.910	-.13540	.02600	.11410	-.13440	.03055	-.00060	.00030	.00100	.96400	.03553
.260	4.010	-.03950	.02330	.11370	-.03780	.02609	-.00060	.00040	.00100	1.75900	.03474
.260	6.100	.05630	.02350	.11390	.05850	.01742	-.00060	.00000	.00200	-.06400	.03470
.260	8.240	.15710	.02860	.11360	.15950	.00584	-.00070	.00030	.00300	.34900	.03539
.260	10.380	.25700	.03960	.11700	.25990	-.00736	-.00070	.00010	.00400	.44600	.03652
.260	12.500	.36220	.05780	.11930	.36610	-.02189	-.00030	.00010	.00400	.53200	.03793
.260	14.660	.47750	.08580	.11940	.48370	-.03789	-.00050	.00040	.00500	.56200	.04027
.260	16.830	.60760	.12690	.11010	.61830	-.05456	-.00090	.00070	.00700	.54600	.04273
.260	18.990	.72840	.17770	.10320	.74660	-.06901	-.00070	-.00010	.00400	.60000	.04515
.260	21.150	.83730	.23580	.10320	.86600	-.08221	-.00030	-.00060	.00900	.60900	.04744
.260	23.300	.95840	.31560	.09200	1.00300	-.09930	.00090	.00240	.00700	.61400	.05064
.260	25.410	1.01830	.38650	.09910	1.08570	-.08799	.00140	.00240	.00400	.61400	.05512
GRADIENT		.04740	-.00432	-.00120	.04800	.00007	-.00004	.00004	.00024	.10330	-.00004

REFERENCE DATA

SREF = 2690.0100 SQ.FT.

YMRP = 1076.4800 INCHES

LREF = 474.8100 INCHES

YMRP = .0000 INCHES

BREF = 936.6600 INCHES

ZMRP = 375.0000 INCHES

SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000

8DFLAP = .000

ELEVOM = -5.000

AILRON = .000

RUDDER = .000

SPDBRK = 25.000

RUN NO. 31 / 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00											
MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-10.770	-.65470	.12850	.08160	-.66710	.00397	-.00030	.00040	-.00100	.69700	.03829
.260	-8.630	-.54950	.09270	.08120	-.55720	.00919	-.00020	.00000	-.00100	.70500	.03859
.260	-6.500	-.44450	.06530	.07890	-.44900	.01455	-.00010	.00030	-.00200	.71600	.03809
.260	-4.370	-.33550	.04490	.07620	-.33790	.01921	-.00020	.00020	-.00100	.73500	.03900
.260	-2.240	-.23150	.03310	.07290	-.23260	.02410	-.00050	.00020	.00000	.76700	.03755
.260	-.120	-.13390	.02630	.07050	-.13400	.02609	-.00050	.00020	.00000	.84500	.03730
.260	1.980	-.03670	.02330	.06970	-.03580	.02460	-.00050	.00040	.00000	1.36700	.03690
.260	4.110	.05910	.02260	.06950	.06060	.01831	-.00060	.00040	.00100	.22900	.03689
.260	6.220	.15750	.02680	.06910	.15950	.00959	-.00060	.00030	.00200	.49200	.03590
.260	8.350	.26020	.03490	.06870	.26250	-.00327	-.00070	.00020	.00300	.55500	.03696
.260	10.470	.35960	.04940	.07150	.36260	-.01678	-.00070	.00000	.00400	.57900	.03796
.260	12.620	.46790	.07180	.07230	.47230	-.03212	-.00070	-.00010	.00500	.59500	.03964
.260	14.760	.56170	.10290	.07100	.56870	-.04864	-.00060	.00000	.00500	.60700	.04201
.260	16.940	.71550	.14950	.06030	.72410	-.06345	-.00090	.00000	.00700	.62100	.04419
.260	19.090	.83350	.20390	.05590	.85440	-.07997	-.00100	-.00040	.00900	.62400	.04640
.260	21.250	.94340	.26810	.05330	.97650	-.09210	-.00010	-.00050	.00900	.63200	.04901
.260	23.420	1.06090	.35590	.04040	1.11500	-.09327	.00050	.00250	.00900	.63400	.05337
.260	25.520	1.12230	.43190	.04980	1.19890	-.09388	.00390	.00140	.01100	.63600	.05774
GRADIENT		.04646	-.00257	-.00078	.04692	-.00006	-.00004	.00003	.00019	-.01959	-.00014

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR.

CA119A 861C11F12M31W12E47V19R15X29

(NF8032) (05 JUL 74)

REFERENCE DATA

SREF = 2490.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.6100 INCHES YMRP = .0000 INCHES
 BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0403 SCALE

BETA = .000 SDFLAP = .000
 ELEVON = -5.000 AILFON = .000
 RUDDER = .000 SPOBRK = 25.000

PARAMETRIC DATA

RUN NO. 32/ 0 RN/L = 1.83 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAS
.260	-10.760	-.5520	.12690	.08270	-.66780	.00408	-.00030	.00070	-.00200	.69700	.03602
.260	-8.640	-.53070	.09290	.06190	-.55840	.00903	-.00040	-.00020	-.00100	.70800	.03636
.260	-6.510	-.44440	.06500	.07980	-.44890	.01423	-.00030	.00020	-.00100	.71700	.03627
.260	-4.340	-.33490	.04450	.07710	-.33740	.01899	-.00030	.00000	-.00100	.73600	.03771
.260	-2.250	-.23240	.03260	.07370	-.23350	.02330	-.00050	.00010	.00000	.76900	.03902
.260	-.130	-.13460	.02610	.07140	-.13470	.02598	-.00050	.00020	.00000	.84700	.03734
.260	1.980	-.03720	.02320	.07050	-.03840	.02449	-.00070	.00030	.00100	1.36400	.03699
.260	4.080	.03730	.02230	.07020	.05870	.01823	-.00070	.00020	.00100	.21200	.03686
.260	6.210	.15640	.02600	.06980	.15830	.00956	-.00070	.00020	.00200	.49300	.03666
.260	8.350	.28020	.03310	.06880	.26260	-.00307	-.00090	.00000	.00300	.55500	.03673
.260	10.450	.35760	.04900	.07150	.36060	-.01666	-.00090	.00000	.00300	.57900	.03799
.260	12.610	.46820	.07110	.07268	.47240	-.03294	-.00070	-.00010	.00500	.59500	.04010
.260	14.770	.58240	.10370	.07120	.58960	-.04819	-.00060	-.00020	.00500	.60700	.04160
.260	16.920	.71230	.14830	.06160	.72460	-.06949	-.00100	.00000	.00400	.62000	.04436
.260	19.100	.83250	.20320	.05690	.83320	-.08049	-.00110	-.00050	.01000	.62700	.04677
.260	21.250	.94200	.26710	.05430	.97470	-.09234	-.00030	-.00040	.01000	.63100	.04918
.260	23.410	1.05730	.35530	.04200	1.11150	-.09397	.00030	.00210	.00900	.63600	.05305
.260	25.540	1.11760	.42960	.05220	1.19370	-.09432	.00020	.00190	.01200	.63800	.05797
GRADIENT		.04649	-.00255	-.00081	.04895	-.00002	-.00003	.00003	.00024	-.02136	-.00013

GALL19A 361C11F12M31W124E48V19R13X29

(RF0033) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6000 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

BETA = .000 BDFLAP = .000
ELEVON = -5.000 AILRON = .000
RUDDER = .000 SPDBRK = 25.000

PARAMETRIC DATA

RUN NO. 33/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CT	XCP/L	CAB
.260	-10.750	-.65570	.12870	.08280	-.66820	.00408	-.00050	.00050	.00000	.69700	.03795
.260	-8.540	-.55020	.09300	.06150	-.55790	.00924	-.00050	-.00050	.00000	.70500	.03804
.260	-6.500	-.44320	.06470	.07990	-.44760	.01411	-.00050	.00000	.00000	.71700	.03827
.260	-4.370	-.33590	.04470	.07700	-.33830	.01902	-.00050	.00000	.00000	.73300	.03910
.260	-2.240	-.23240	.03310	.07360	-.23360	.02403	-.00050	.00010	.00000	.76800	.03740
.260	-.130	-.13520	.02610	.07170	-.13530	.02383	-.00050	.00010	.00000	.84700	.03724
.260	1.990	-.03680	.02320	.07060	-.03590	.02450	-.00060	.00020	.00100	1.37400	.03697
.260	4.080	.05770	.02240	.07040	.05920	.01926	-.00050	.00030	.00100	.21400	.03722
.260	6.240	.15820	.02670	.07000	.16010	.00555	-.00050	.00020	.00300	.49100	.03593
.260	8.360	.25950	.03470	.06960	.26190	-.00336	-.00050	.00010	.00300	.55400	.03647
.260	10.480	.35890	.04890	.07240	.36190	-.01722	-.00050	.00000	.00400	.57800	.03797
.260	12.630	.46700	.07160	.07300	.47140	-.03229	-.00050	-.00020	.00400	.59500	.03951
.260	14.770	.58270	.10350	.07150	.58980	-.04856	-.00060	-.00020	.00500	.60700	.04163
.260	16.940	.71390	.14900	.06150	.72630	-.06349	-.00100	.00020	.00400	.62000	.04399
.260	19.080	.83220	.20320	.05700	.83290	-.07996	-.00100	-.00050	.00300	.62700	.04621
.260	21.240	.94290	.26660	.05420	.97550	-.09288	-.00050	-.00050	.00300	.63100	.04934
.260	23.410	1.06050	.35630	.04160	1.11480	-.09445	.00040	.00250	.00300	.63400	.05264
.260	25.530	1.11800	.42960	.05130	1.19400	-.09418	.00030	.00220	.01000	.63600	.05791
GRADIENT		.04651	-.00258	-.00077	.04694	-.00005	.00001	.00003	.00014	-.02032	-.00010

DATE 22 OCT 74

TABULATED SOURCE DATA - GA119A

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GA119A 861C11F12M31W124E47V19R13X29

(RF0034) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8000 INCHES YMRP = .0000 INCHES
BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = .005 BOFLAP = .000
ELEVON = 5.000 AIRLON = .000
RUDDER = .000 SPDBRK = 25.000

RUN NO. 34/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-10.570	-45270	.08800	-.00940	-.46120	.00342	-.00020	.00030	-.00200	.64400	.04395
.260	-8.430	-34170	.06200	-.01150	-.34710	.01125	.00000	.00070	-.00200	.63900	.04290
.260	-6.280	-23360	.04050	-.01430	-.23680	.01466	.00000	.00030	-.00200	.62900	.04420
.260	-4.150	-12920	.02900	-.01690	-.13090	.01955	-.00050	.00030	.00000	.60400	.04325
.260	-2.010	-.03230	.02500	-.01790	-.03310	.02396	-.00050	.00070	.00000	.45300	.04316
.260	.070	.06280	.02540	-.01880	.04290	.02539	-.00040	.00090	.00000	.76200	.04194
.260	2.170	.15960	.02790	-.02000	.16030	.02195	-.00060	.00070	.00100	.69900	.04201
.260	4.250	.25350	.03370	-.02120	.25540	.01486	-.00060	.00060	.00200	.64200	.04144
.260	6.410	.35340	.04470	-.02270	.35920	.00475	-.00070	.00040	.00300	.67500	.04060
.260	8.530	.45760	.05970	-.02330	.46140	-.00879	-.00090	.00040	.00500	.67000	.04114
.260	10.640	.56000	.08120	-.02150	.56530	-.02360	-.00090	.00040	.00600	.66600	.04206
.260	12.820	.66740	.11080	-.02060	.67330	-.04003	-.00100	.00030	.00600	.66300	.04397
.260	14.970	.78340	.15120	-.02340	.79590	-.05627	-.00090	.00000	.00600	.66300	.04564
.260	17.130	.91710	.20690	-.03570	.93740	-.07246	-.00130	.00000	.00400	.66600	.04764
.260	19.280	1.03030	.26820	-.03640	1.06110	-.08711	-.00140	-.00030	.01100	.66500	.05059
.260	21.430	1.13400	.34340	-.04130	1.18110	-.09465	.00000	.00090	.00400	.66500	.05399
.260	23.600	1.24200	.44620	-.03360	1.31670	-.09831	-.00150	-.00170	.01400	.66700	.06076
.260	25.720	1.29140	.52230	-.03810	1.35040	-.09939	.00020	-.00060	.01300	.66200	.06543
GRADIENT		.04563	.00059	-.00051	.04605	-.00054	-.00001	.00001	.00024	.01904	-.00023

GALL19A 861C11F12M31W124E48V19R15129

REFERENCE DATA PARAMETRIC DATA

SREF = 2490.0100 SQ.FT. XMRP = 1076.4800 INCHES BETA = .000 BDFLAP = .000
 LREF = 474.8100 INCHES YMRP = .0000 INCHES ELEVON = 5.000 AILRON = .000
 RREF = 936.6800 INCHES ZMRP = 375.0000 INCHES RUDDER = .000 SPOBRK = 25.000
 SCALE = .0403 SCALE

RUN NO. 35/ 0 RN/L = 1.65 GRADIENT INTERVAL = -6.00/ 6.00											
MACH	ALPHA	CL	CD	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-10.580	-.45100	.08790	-.00930	-.45950	.00359	-.00020	.00050	-.00100	.64400	.04371
.260	-8.430	-.34120	.06070	-.01180	-.34640	.01004	.00000	.00090	-.00100	.63900	.04393
.260	-6.280	-.23140	.04050	-.01450	-.23440	.01493	-.00020	.00060	-.00100	.62900	.04356
.260	-4.170	-.12790	.02870	-.01720	-.12970	.01940	-.00050	.00050	.00000	.60300	.04321
.260	-2.080	-.03410	.02520	-.01830	-.03500	.02400	-.00060	.00070	.00000	.45900	.04265
.260	.060	.06320	.02520	-.01930	.06320	.02516	-.00060	.00040	.00100	.76400	.04194
.260	2.160	.16000	.02730	-.02030	.16090	.02129	-.00070	.00090	.00200	.69400	.04226
.260	4.260	.25620	.03590	-.02140	.25610	.01480	-.00070	.00060	.00200	.64200	.04114
.260	6.400	.35540	.04410	-.02280	.35510	.00425	-.00040	.00050	.00300	.67500	.04074
.260	8.530	.45870	.05950	-.02320	.45240	-.00916	-.00090	.00060	.00400	.67000	.04130
.260	10.660	.55900	.08050	-.02040	.55330	-.02410	-.00090	.00040	.00500	.66500	.04232
.260	12.800	.66580	.11100	-.01990	.67390	-.03934	-.00100	.00030	.00600	.66300	.04355
.260	14.960	.76310	.15120	-.02290	.75560	-.05621	-.00090	.00010	.00600	.66200	.04379
.260	17.110	.91560	.20630	-.03510	.93580	-.07237	-.00130	.00000	.00900	.66500	.04400
.260	19.280	1.03020	.26850	-.03750	1.06110	-.09670	-.00130	-.00060	.01000	.66500	.05044
.260	21.440	1.13550	.34480	-.04070	1.18290	-.09420	-.00010	.00060	.00900	.66400	.05369
.260	23.600	1.24430	.44730	-.05300	1.31930	-.08925	-.00150	-.00140	.01900	.66600	.06350
.260	25.710	1.29410	.52420	-.03930	1.39340	-.08914	.00020	-.00110	.01400	.66200	.06522
	GRADIENT	.04561	.00059	-.00049	.04604	-.00056	-.00002	.00001	.00024	.01492	-.00021

REPRODUCIBILITY OF THE
 ORIGINAL PAGE IS POOR

DATE 22 OCT 74 TABULATED SOURCE DATA - G0119A

(RF0036) (09 JUL 74)

G0119A 861C11F12M51W124E46V19R15X29

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVON = 3.000 ATRON = .000
RUDDER = .000 SPOBPK = 23.000

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0400 SCALE

RUN NO. 36/ 0 RN.L = 1.03 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CLM	CN	CAF	CYN	CEL	CY	XCP/L	CAB
.260	-10.560	-.45160	-.00990	-.46000	.00346	-.00030	.00070	-.00100	.64400	.04396
.260	-8.410	-.33670	-.01230	-.34370	.01016	-.00030	.00060	.00000	.63600	.04361
.260	-6.300	-.23280	-.01320	-.23580	.01481	-.00030	.00070	.00000	.62400	.04343
.260	-4.160	-.12650	-.01770	-.12820	.01946	-.00030	.00070	.00000	.60100	.04344
.260	-2.060	-.03170	-.01850	-.03260	.02396	-.00040	.00060	.00000	.44200	.04263
.260	.070	.06560	-.01970	.06560	.02446	-.00060	.00100	.00000	.76200	.04265
.260	2.170	.16090	-.02090	.16190	.02154	-.00060	.00090	.00100	.69900	.04214
.260	4.270	.25800	-.02180	.25990	.01462	-.00070	.00060	.00200	.64300	.04139
.260	6.410	.35650	-.02350	.35930	.00463	-.00070	.00070	.00200	.67600	.04061
.260	8.540	.46020	-.02370	.46410	-.00664	-.00090	.00060	.00400	.67100	.04074
.260	10.670	.56000	-.02130	.56370	-.02384	-.00090	.00060	.00400	.66600	.04213
.260	12.790	.66700	-.02040	.67500	-.03946	-.00090	.00010	.00300	.66300	.04340
.260	14.990	.76440	-.02360	.79710	-.03577	-.00070	-.00020	.00600	.66300	.04329
.260	17.120	.91640	-.03310	.93630	-.07269	-.00130	.00040	.00400	.66300	.04416
.260	19.260	1.03090	-.03790	1.06180	-.08644	-.00130	-.00030	.01000	.66300	.05033
.260	21.450	1.13610	-.04120	1.18370	-.09410	.00090	.00040	.00400	.66400	.05344
.260	23.580	1.24290	-.05260	1.31750	-.08850	-.00190	-.00160	.02000	.66600	.06042
.260	25.710	1.29310	-.03900	1.39220	-.09929	.00000	-.00050	.01400	.66200	.06514
GRADIENT		.04559	-.00050	.04603	-.00057	-.00003	.00001	.00024	.02003	-.00022

DATE 22 OCT 74

TABULATED SOURCE DATA - GA119A

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GA119A 861C11F12M31W124E49V19R13129

(RF0037) (09 JUL 74)

REFERENCE DATA

BRF = 2000.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BRF = 936.6800 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

BETA = .000 8DFLAP = .000
ELEVOM = 10.000 AILROM = .000
RUDDER = .000 SPDRK = 25.000

PARAMETRIC DATA

RUN NO. 37/ 0 RM/L = 1.65 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CYN	CBL	CY	KCP/L	CAB
.260	-10.480	-.35440	.07600	-.05330	-.36230	.01024	-.00620	.00040	-.00200	.59400	.04617
.260	-8.360	-.24690	.05320	-.05320	-.25200	.01676	-.00020	.00040	-.00100	.57100	.04610
.260	-6.210	-.13730	.03710	-.05330	-.13930	.02220	-.00060	.00030	.00000	.49500	.04618
.260	-4.070	-.03190	.02680	-.06240	-.03390	.02652	-.00070	.00030	.00000	-.02400	.04609
.260	-1.970	.06380	.02640	-.06430	.06270	.03066	-.00070	.00040	.00000	1.02900	.04329
.260	.170	.16350	.03150	-.06600	.16360	.03103	-.00080	.00090	.00100	.80000	.04490
.260	2.250	.25730	.03740	-.06790	.25660	.02730	-.00090	.00120	.00200	.74800	.04463
.260	4.380	.35550	.04720	-.06960	.35810	.01993	-.00110	.00060	.00300	.72300	.04407
.260	6.500	.45870	.06180	-.07220	.46280	.00943	-.00120	.00060	.00400	.70900	.04339
.260	8.630	.56300	.08150	-.07390	.56680	-.00397	-.00130	.00000	.00500	.70000	.04391
.260	10.770	.66760	.10840	-.07360	.67610	-.01828	-.00130	-.00020	.00600	.69200	.04433
.260	12.930	.78000	.14410	-.07390	.79240	-.03400	-.00130	-.00060	.00800	.68700	.04609
.260	15.080	.90090	.19050	-.08120	.91940	-.05051	-.00130	-.00040	.00700	.68400	.04759
.260	17.220	1.02240	.24790	-.08810	1.04990	-.06590	-.00110	-.00070	.00700	.68300	.05003
.260	19.380	1.12700	.31320	-.08830	1.16710	-.07848	-.00090	-.00050	.00400	.68000	.05235
.260	21.510	1.21450	.39650	-.08970	1.27530	-.07647	.00000	.00030	.00400	.67800	.05677
.260	23.700	1.33080	.50360	-.10250	1.42100	-.07388	-.00120	-.00610	.02100	.67400	.06393
.260	25.770	1.36590	.57500	-.08070	1.49010	-.07612	.00030	-.00350	.01400	.67200	.06467
GRADIENT		.04565	.00217	-.00085	.04640	-.00078	-.00005	.00002	.00034	.05735	-.00021

DATE 22 OCT 74

TABULATED SOURCE DATA - G4119A

PAGE 29

G4119A 061C11F12431W124E46V19813829

(RFA039) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 50. FT. XMRP = 1076.4900 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6900 INCHES ZMRP = 375.0000 INCHES
SCALE = .0400 SCALE

BETA =
ELEVON =
RUDDER =

.000 9DFLAP = .000
10.000 AIRLUM = .000
.000 SPODER = 25.000

PARAMETRIC DATA

RUN NO. 38/ 0 RN/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYM	CBL	CT	XCP/L	CAB
.280	-10.450	-.34920	.07370	-.05820	-.35680	.00919	.00000	.00030	-.00200	.59400	.04648
.280	-8.300	-.23930	.05130	-.05880	-.24440	.01614	-.00010	.00110	-.00100	.56300	.04633
.280	-6.140	-.13000	.03590	-.06290	-.13310	.02169	-.00040	.00080	.00000	.47800	.04634
.280	-4.050	-.02590	.02820	-.06350	-.02780	.02637	-.00070	.00030	.00100	-.21300	.04602
.280	-1.910	.07100	.02790	-.06700	.07000	.03028	-.00070	.00060	.00100	1.00400	.04559
.280	.190	.16530	.03100	-.06850	.16560	.03033	-.00080	.00070	.00200	.40400	.04526
.280	2.310	.26210	.03680	-.06970	.26340	.02616	-.00090	.00060	.00300	.74900	.04511
.280	4.410	.35750	.04650	-.07090	.36010	.01898	-.00100	.00060	.00400	.72400	.04421
.280	6.530	.45730	.06050	-.07200	.46120	.00404	-.00100	.00030	.00400	.70900	.04354
.280	8.660	.55910	.08050	-.07260	.56440	-.00453	-.00100	.00040	.00500	.69900	.04346
.280	10.810	.66680	.10630	-.07280	.67490	-.02071	-.00110	.00030	.00600	.69100	.04313
.280	12.950	.77700	.14180	-.07440	.78900	-.03600	-.00110	.00030	.00700	.68600	.04399
.280	15.100	.89080	.18630	-.07700	.90860	-.05217	-.00040	-.00030	.00800	.68300	.04737
.280	17.250	1.02330	.24620	-.08820	1.05030	-.06441	-.00110	-.00030	.00900	.64300	.04937
.280	19.410	1.13140	.31130	-.09970	1.17060	-.08251	-.00100	-.00030	.00900	.64000	.03223
.280	21.560	1.22900	.39980	-.09480	1.29000	-.07974	.00030	.00140	.00900	.67900	.03636
.280	23.730	1.34500	.50720	-.10460	1.43540	-.07716	-.00040	-.00030	.02000	.64000	.06347
.280	25.840	1.37870	.54140	-.08650	1.49420	-.07744	.00020	-.00140	.01300	.67300	.06742
GRADIENT		.04531	.00215	-.00064	.04545	-.00090	-.00004	.00001	.00034	.07693	-.00019

GALL19A 861C11F12M51W124E47V19R13X29

REFERENCE DATA

BREF = 2690.0100 SQ. FT. ZMRP = 1076.4000 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BREF = 936.6000 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 BDFLAP = .900
 ELEVOM = .000 ALLROM = .000
 RUDDER = .000 SPOBCK = 25.000

RUN NO. 41/ 0 RM/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CM	CAF	CYN	CBL	CT	RCP/L	CAD
.260	-10.560	-.55180	.10510	.03370	-.56170	.00119	.00000	.06790	-.00300	.67500	.04116
.260	-8.530	-.44270	.07380	.03360	-.44870	.00730	.00000	.00111	-.00200	.67500	.04076
.260	-6.380	-.33290	.04990	.03120	-.33640	.01237	-.00020	.00073	-.00200	.69600	.04071
.260	-4.220	-.22920	.03490	.02910	-.23120	.01763	.00000	.00040	-.00200	.69600	.04034
.260	-2.100	-.12890	.02720	.02720	-.12980	.02246	-.00030	.00000	.00000	.72900	.03993
.260	-.020	-.03490	.02360	.02610	-.03490	.02366	-.00060	.00000	.00000	.92700	.03944
.260	2.070	.06060	.02360	.02540	.06140	.02144	-.00030	.00100	.00000	.49900	.03921
.260	4.190	.15750	.02640	.02440	.15910	.01489	-.00060	.00000	.00100	.59300	.03996
.260	6.330	.25950	.03350	.02310	.26170	.00466	-.00070	.00000	.00200	.61900	.03940
.260	8.450	.36120	.04540	.02220	.36400	-.00917	-.00070	.00000	.00200	.62900	.03961
.260	10.600	.46300	.06350	.02520	.46680	-.02274	-.00060	.00100	.00300	.63200	.03967
.260	12.700	.56600	.09860	.02690	.57160	-.03907	-.00070	.00040	.00400	.63400	.04124
.260	14.870	.67980	.12360	.02580	.68850	-.05499	-.00070	.00070	.00500	.63400	.04343
.260	17.020	.81220	.17340	.01490	.82740	-.07193	-.00130	.00110	.00400	.64300	.04605
.260	19.200	.93140	.23270	.01010	.93610	-.08634	-.00100	-.00020	.00300	.64900	.04854
.260	21.350	1.03650	.30150	.00750	1.07700	-.09724	.00000	.00000	.00400	.64900	.05162
.260	23.530	1.15500	.40070	-.00750	1.21890	-.09369	.00030	.00150	.00900	.65400	.05657
.260	25.600	1.20620	.47400	.00650	1.29260	-.09393	.00030	.00110	.01200	.65900	.06042
GRADIENT		.04574	-.00098	-.00033	.04617	-.00033	-.00006	.00002	.00029	-.02063	-.00017

REPRODUCIBILITY OF THE
 ORIGINAL PAGE IS POOR

G4119A 061C11F12M51W124E40V10R13H20

ISF0042) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 SQ.FT. ZMRP = 1076.4000 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
ORF = 936.6000 INCHES ZMRP = 373.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVON = .000 AILCON = .000
RUDDER = .000 SPOBER = 23.000

RUN NO. 42/ 0 RN/L = 1.65 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CYM	CB	ACP/L	CAB
.260	-10.650	-.35150	.10360	.03640	-.36150	.00200	-.00010	.53080	.67600	.04097
.260	-8.510	-.44280	.07390	.03430	-.44880	.00761	.00000	.00090	.68000	.04079
.260	-6.370	-.33400	.05000	.03190	-.33750	.01262	-.00030	.00030	.68600	.04109
.260	-4.230	-.23190	.03520	.02990	-.23380	.01792	.00020	.00090	.69900	.04043
.260	-2.140	-.13160	.02740	.02790	-.13250	.02235	-.00050	.00040	.72900	.03996
.260	-.030	-.03580	.02370	.02670	-.03580	.02384	-.00050	.00040	.92600	.03990
.260	2.070	.05980	.02350	.02590	.06060	.02135	-.00030	.00090	.49400	.03972
.260	4.200	.15830	.02680	.02470	.15940	.01514	-.00060	.00090	.33300	.03493
.260	6.330	.25970	.03420	.02270	.26190	.00533	-.00070	.00040	.62000	.03450
.260	8.450	.36430	.04690	.02120	.36720	-.00726	-.00070	.00060	.63000	.03902
.260	10.590	.46500	.06490	.02350	.46900	-.02160	-.00050	.00060	.63300	.03946
.260	12.740	.57140	.09140	.02500	.57750	-.03649	-.00060	.00040	.63600	.04124
.260	14.880	.68610	.12680	.02270	.69560	-.05370	-.00040	.00040	.64000	.04333
.260	17.050	.81450	.17520	.01410	.83010	-.07130	-.00110	.00090	.64500	.04646
.260	19.190	.93060	.23390	.01030	.95580	-.09450	-.00070	.00010	.64900	.04557
.260	21.360	1.03790	.30340	.00400	1.07710	-.09553	.00030	.00030	.64900	.51163
.260	23.520	1.15100	.40070	-.00670	1.21530	-.09200	.00050	.00140	.65400	.03641
.260	25.610	1.20290	.47410	.00750	1.28960	-.09254	.00040	.00120	.65000	.06109
GRADIENT		.04604	-.00098	-.00059	.04644	-.00032	-.00004	.00000	-.00024	-.00015

GA119A 001C11F12M31W124C49V19R13220

(RFB043) (09 JUL 74

REFERENCE DATA

REF = 2690.0100 SQ.FT. XMRP = 1076.4870 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BREF = 936.6900 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 BOFLAP = .000
 ELEVON = -10.000 ALLCON = .000
 RUDDER = .000 SPODER = 23.000

RUN NO. 43/ 0 RM/L = 1.05 GRADIENT INTERVAL = -0.00/ 6.00

W P M	ALPHA	CL	CLM	CLN	CAF	CYN	CBL	CT	RCP/L	CAB
.260	-10.040	-.75620	.12610	-.77210	.01134	-.00030	.00030	-.00100	.71300	.03499
.260	-8.710	-.65460	.12370	-.66460	.01333	-.00010	-.00030	-.00200	.72300	.03396
.260	-6.380	-.54920	.08300	-.55330	.02148	-.00030	-.00020	-.00100	.73600	.03324
.260	-4.440	-.43980	.06040	-.44320	.02613	-.00020	.00020	-.00100	.75300	.03316
.260	-2.310	-.33330	.04310	-.33480	.02968	-.00040	.00020	-.00100	.74300	.03616
.260	-.160	-.23100	.03310	-.23110	.03293	-.00030	.00010	.00000	.93700	.03326
.260	1.910	-.13350	.02660	-.13260	.03109	-.00030	.00020	.00000	.96900	.03341
.260	4.040	-.03690	.02410	-.03310	.02670	-.00060	.00030	.00000	1.43400	.03476
.260	6.160	.06170	.02470	.06400	.01903	-.00060	.00030	.00100	.00200	.03453
.260	8.280	.16200	.03000	.16470	.00637	-.00070	.00030	.00300	.40000	.03343
.260	10.420	.26120	.04170	.26440	-.00624	-.00060	.00020	.00300	.49000	.03664
.260	12.520	.36440	.05990	.36470	-.02037	-.00060	.00030	.00400	.53400	.03716
.260	14.700	.46290	.08970	.46960	-.03669	-.00030	.00030	.00300	.56400	.04046
.260	16.930	.60970	.12770	.61980	-.03391	-.00070	.00040	.00600	.54700	.04342
.260	19.030	.72790	.17740	.74390	-.06965	-.00030	.00000	.00700	.33900	.04662
.260	21.200	.83950	.23660	.86930	-.04307	.00010	.00000	.00400	.60400	.04442
.260	23.310	.93210	.31340	.99360	-.04456	.00130	.00270	.00600	.61700	.05143
.260	25.440	1.01610	.39710	1.09360	-.04792	.00160	.00210	.00400	.61400	.05623
.260	GRADIENT	.04744	-.00421	.04404	.00012	-.00004	.00001	.00014	.11102	-.00013

GALL19A 061C11F12M31W124E30V19R15K29

(070044) (21 OCT 74)

REFERENCE DATA

WREF = 2690.0100 SQ.FT. WHP = 1076.4800 INCHES
LREF = 474.8100 INCHES WHP = .0000 INCHES
BREF = 936.6000 INCHES WHP = 375.0000 INCHES
SCALE = .0400 SCALE

BETA = .000 DDFLAP = .000
ELEVON = -40.000 AIRLON = .000
FOODER = .000 SPDBER = 25.000

PARAMETRIC DATA

RUN NO. 447 0 RW/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	COF	CLM	CN	CAF	CTN	COL	C*	ACP/L	CAB
.260	-11.110	-.38060	.29290	.21890	-1.01870	.08843	-.00060	.00120	-.00100	.73100	.03724
.260	-8.990	-.31170	.24920	.23260	-.93950	.10339	-.00040	-.00610	-.00300	.74300	.03310
.260	-6.690	-.02320	.20940	.23810	-.84240	.10909	-.00030	-.00240	-.00200	.75600	.03609
.260	-4.750	-.71710	.17170	.23140	-.72390	.11215	.00000	-.00120	-.00300	.76900	.03599
.260	-2.600	-.59330	.13960	.22070	-.59230	.11261	-.00020	-.00130	-.00200	.78100	.03637
.260	-.490	-.48230	.11820	.21130	-.48330	.11210	-.00010	-.00040	-.00200	.81300	.03673
.260	1.640	-.37860	.09960	.20440	-.37560	.11047	-.00030	-.00140	-.00200	.85200	.03696
.260	3.760	-.27300	.08360	.19850	-.26890	.10336	-.00100	-.00240	.00000	.92600	.03760
.260	5.910	-.17860	.07880	.19900	-.16950	.09642	-.00110	-.00240	.00100	1.04400	.03699
.260	8.020	-.08750	.07470	.20140	-.07820	.08622	-.00110	-.00240	.00100	1.62400	.03901
.260	10.120	.00380	.07790	.20690	.01740	.07605	-.00040	-.00170	.00300	-3.70000	.03934
.260	12.240	.09330	.08720	.21410	.11170	.06499	-.00040	-.00040	.00300	-.05300	.04094
.260	14.380	.19300	.10210	.21850	.21230	.05104	.00000	-.00040	.00400	.27300	.04415
.260	16.550	.30770	.12940	.21830	.33160	.03642	-.00040	-.00150	.00600	.40900	.04310
.260	18.660	.40700	.16430	.22190	.43420	.02329	-.00060	-.00140	.00400	.46300	.04776
.260	20.760	.48290	.20330	.23410	.52360	.01475	.00000	-.00120	.01000	.44700	.05014
.260	22.910	.56460	.25190	.24230	.61820	.01215	.00060	-.00140	.00900	.30700	.05267
.260	25.030	.64510	.30300	.24240	.71270	.00149	.00330	-.00030	.00100	.32600	.05343
.260	GRADIENT	.05010	-.00863	-.00316	.03203	-.00142	-.00011	-.00014	.00021	.02727	.00012

0A119A 861C11F12M31M124E11V19R13Z29

(0F9045) (21 OCT 74)

REFERENCE DATA

SREF = 2890.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.8100 INCHES YMRP = .7000 INCHES
 BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 BDCLAP = .000
 ELEVON = -40.000 ALLRON = .000
 RUDDER = .000 SPOBRK = 25.000

RUN NO. 45/ 0 RM/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-11.130	-.98080	.29470	.21940	-1.01930	.09974	-.00170	.00230	.00100	.73100	.03592
.260	-9.000	-.90350	.24820	.23080	-.93320	.10349	-.00089	-.00610	-.00400	.74300	.03555
.260	-6.990	-.82340	.21060	.23860	-.84280	.11027	-.00070	-.00230	-.00100	.75600	.03319
.260	-4.770	-.71250	.17280	.23180	-.72450	.11295	-.00020	-.00110	-.00100	.76900	.03349
.260	-2.630	-.59750	.14060	.22240	-.60340	.11309	-.00060	-.00120	.00000	.78700	.03614
.260	-.470	-.48650	.11790	.21400	-.48740	.11399	-.00040	-.00050	-.00100	.81300	.03853
.260	1.640	-.37810	.09960	.20500	-.37510	.11046	-.00050	.00000	.00000	.83300	.03660
.260	3.750	-.27310	.08690	.19900	-.26690	.10463	-.00040	.00020	.00000	.92600	.03624
.260	5.880	-.18270	.08050	.20110	-.17350	.09882	-.00030	.00070	.00100	1.07400	.03601
.260	8.010	-.08850	.07670	.20340	-.07700	.08838	-.00030	.00070	.00000	1.62400	.03763
.260	10.100	.00110	.08110	.20820	.01530	.07973	-.00030	.00090	.00300	-4.33100	.03731
.260	12.240	.09250	.08870	.21590	.10920	.06706	.00020	.00130	.00300	-.07500	.04026
.260	14.370	.19270	.10320	.21970	.21230	.03216	.00030	.00120	.00400	.27100	.04349
.260	16.510	.30360	.13050	.21890	.33010	.03924	-.00020	.00030	.00600	.40400	.04443
.260	18.660	.40370	.16430	.22370	.4. 10	.02646	-.00020	.00050	.00300	.46200	.04724
.260	20.780	.48600	.20370	.23430	.52670	.01805	.00000	.00000	.00900	.44900	.05064
.260	22.920	.57450	.25340	.23940	.62780	.00971	.00070	-.00090	.00900	.51100	.05326
.260	25.040	.64810	.30530	.24230	.71. 20	.00223	.00030	-.00040	.00100	.52700	.05629
	GRADIENT	.05008	-.00961	-.00313	.05205	-.00133	-.00000	.00014	.00015	.02645	.00004

DATE 22 OCT 74

TABULATED SOURCE DATA - 04119A

PAGE 34

-A119A 861C11F12M31W124E31V19R15X29

(JF4046) (21 OCT 74

REFERENCE DATA

SREF = 2690.0100 50.FT. XMRP = 1076.4000 INCHES
LREF = 474.5100 INCHES YMRP = .0000 INCHES
GREF = 936.6400 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

BETA =
ELEVON =
PUDDER =

.000 BDFLAP = .000
-30.000 AIRLON = .000
.000 SPODRK = 25.000

PARAMETRIC DATA

RUN NO. 46/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CYN	CBL	CT	XCP/L	CAB
.260	-11.140	-.99630	.27070	.23030	-1.02960	.07314	-.00120	.00340	.00000	.73400	.03663
.260	-9.000	-.91600	.22500	.24110	-.93990	.07890	.00020	-.00100	-.00400	.74600	.03267
.260	-6.860	-.80430	.17670	.23720	-.81990	.06140	.00000	.00300	-.00200	.75900	.03350
.260	-4.690	-.67610	.14130	.22420	-.68340	.06533	.00010	.00280	-.00100	.77200	.03403
.260	-2.560	-.55230	.11300	.21060	-.53700	.06823	.00030	.00310	-.00100	.79100	.03406
.260	-.430	-.43920	.09360	.20190	-.43990	.09034	-.00030	.00130	.00000	.82100	.03443
.260	1.690	-.33980	.07900	.19920	-.33730	.08906	-.00020	.00130	.00000	.86900	.03619
.260	3.820	-.23660	.06840	.19480	-.23350	.08424	-.00040	.00140	.00000	.85900	.03349
.260	5.920	-.14680	.06180	.19520	-.13970	.07666	-.00060	.00030	.00100	1.16600	.03652
.260	8.030	-.05340	.06070	.19790	-.04440	.06761	-.00080	.00010	.00200	2.24900	.03705
.260	10.180	.04220	.06320	.20220	.03270	.05481	-.00080	.00020	.00300	-.75700	.03916
.260	12.310	.13670	.07320	.20780	.14910	.04244	-.00090	.00040	.00500	.13900	.03963
.260	14.430	.23460	.09130	.21290	.25000	.02995	-.00090	.00010	.00500	.33800	.04061
.260	16.560	.32760	.11410	.22060	.34680	.01592	-.00110	-.00210	.00400	.41700	.04341
.260	18.700	.43140	.14840	.22380	.43620	.00231	-.00100	-.00100	.00400	.47100	.04332
.260	20.820	.50700	.18560	.23770	.53980	-.00669	-.00070	-.0010	.00000	.49000	.04797
.260	22.940	.58450	.22990	.24890	.62790	-.01617	.00120	-.00130	.00600	.50600	.05070
.260	25.100	.68120	.29270	.24240	.74100	-.02391	.00390	-.00100	.00700	.53100	.05322
GRADIENT		.04963	-.00735	-.00263	.03116	-.00077	-.00007	-.00036	.00017	.03391	.00027

DATE 22 OCT 74 TABULATED SOURCE DATA - QAL19A

(0F0047) (21 OCT 74)

QAL19A 861C11F12M51M124E31V19R13129

REFERENCE DATA

SREF = 2490.0100 SQ.FT. XMRP = 1076.4800 INCHES
 LREF = 474.8100 INCHES YMRP = .0000 INCHES
 BREF = 936.6800 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0405 SCALE

BETA = .000 90FLAP = .000
 ELEVON = -20.000 AILSCM = .000
 RUDDER = .000 SPOBRK = 25.000

PARAMETRIC DATA

RUN NO. 47/ 0 RN/L = 1.65 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	XCP/L	CAP
.260	-11.030	-.93220	.21650	.20320	-.95680	.03597	-.00040	.00130	-.00100	.73000	.03022
.260	-8.920	-.84820	.17350	.21200	-.86490	.03987	.00000	-.00060	-.00200	.74200	.03151
.260	-6.810	-.74280	.13440	.21070	-.75350	.04333	.00020	.00150	-.00200	.75500	.03219
.260	-4.680	-.62380	.10170	.20210	-.63000	.05067	.00010	.00100	-.00200	.77000	.03294
.260	-2.490	-.51370	.07760	.19690	-.51660	.05523	.00010	.00130	-.00200	.79200	.03224
.260	-.390	-.40780	.05900	.19010	-.40820	.05822	-.00040	.00050	-.00100	.92300	.03246
.260	1.740	-.30440	.04550	.18690	-.30280	.05474	-.00050	.00050	.00000	.97900	.03334
.260	3.810	-.21030	.03720	.18470	-.20740	.05111	-.00050	.00050	.00000	.97900	.03249
.260	5.950	-.11040	.03390	.18360	-.10620	.04526	-.00050	.00110	.00000	1.24700	.03046
.260	8.090	.01130	.03300	.18320	-.00650	.03434	-.00040	.00130	.00000	11.02400	.03291
.260	10.210	.06240	.03710	.18560	.08770	.02191	-.00030	.00130	.00100	-.14200	.03513
.260	12.340	.18040	.04770	.19470	.18650	.00808	-.00010	.00160	.00100	.26700	.03761
.260	14.490	.28960	.06900	.19580	.29770	-.00369	.00000	.00130	.00200	.41000	.03974
.260	16.640	.40950	.10070	.19290	.42120	-.02069	.00000	.00190	.00300	.44300	.04142
.260	18.800	.52420	.14080	.19180	.54160	-.03369	-.00010	.00110	.00300	.52100	.04434
.260	20.940	.62490	.18740	.19550	.65060	-.04833	.00070	.00120	.00300	.54100	.04644
.260	23.080	.73710	.25100	.19000	.77650	-.05800	.00160	.00190	.00300	.56200	.04945
.260	25.240	.83810	.32480	.18170	.89660	-.06366	.00300	-.00070	.00300	.57700	.05244
GRADIENT		.04834	-.00640	-.00179	.04930	-.00055	-.00007	-.00003	.00023	.04319	-.00011

REPRODUCIBILITY OF THE
 ORIGINAL PAGE IS POOR

DATE 22 OCT 74 TABULATED SOURCE DATA - GA119A

(QF8049) (21 OCT 74)

GA119A 861C11F12M51W124E31V19R15X29

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVON = 15.000 AILRON = .000
RUDDER = .000 SPOBFA = 25.000

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4000 INCHES
LREF = 474.6100 INCHES YMRP = .0000 INCHES
BREF = 936.6000 INCHES ZMRP = 375.0000 INCHES
SCALE = .0403 SCALE

RUN NO. 48/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-10.390	-.25640	.06760	-.09760	-.26440	.02027	.00000	.00110	-.00200	.31600	.04969
.260	-8.270	-.14930	.04910	-.10030	-.15460	.02714	-.00020	.00190	-.00100	.41300	.04844
.260	-6.190	-.03500	.03680	-.10640	-.03670	.03290	-.00030	.00090	.00000	-.35700	.04937
.260	-3.990	.06560	.03370	-.11000	.06310	.03821	-.00060	.00110	.00000	1.29300	.04826
.260	-1.890	.16270	.03590	-.11240	.16150	.04132	-.00070	.00110	.00100	.90900	.04812
.260	.220	.25960	.04210	-.11510	.25970	.04114	-.00076	.00110	.00100	.81500	.04900
.260	2.360	.35780	.05190	-.11690	.35960	.03712	-.00070	.00110	.00200	.77100	.04727
.260	4.460	.45490	.06310	-.11940	.45860	.02939	-.00090	.00090	.00300	.74700	.04626
.260	6.580	.55610	.06330	-.12190	.56200	.01900	-.00090	.00060	.00400	.73200	.04596
.260	8.720	.66150	.10710	-.12340	.67010	.00533	-.00090	.00060	.00400	.71900	.04611
.260	10.860	.76930	.13820	-.12450	.78160	-.00915	-.00120	.00060	.00600	.71000	.04672
.260	13.010	.88330	.17860	-.12920	.90080	-.02481	-.00110	.00030	.00600	.70400	.04820
.260	15.160	1.00100	.22900	-.13360	1.02610	-.04076	-.00110	.00000	.00700	.70000	.05050
.260	17.320	1.11640	.28990	-.13680	1.15190	-.05691	-.00100	-.00090	.00900	.69500	.05235
.260	19.460	1.21340	.35620	-.13510	1.26290	-.06440	-.00090	-.00090	.00900	.69100	.05462
.260	21.600	1.29510	.43140	-.13810	1.37030	-.05706	-.00020	.00020	.00900	.64900	.06135
.260	23.760	1.40640	.52250	-.14490	1.50990	-.06120	-.00240	-.00740	.02600	.64700	.06766
.260	25.840	1.43360	.62400	-.11950	1.56220	-.06334	-.00090	-.00300	.01700	.64000	.07273
.260	GRADIENT	.04606	.00373	-.00104	.04679	-.00102	-.00093	-.00002	.00033	-.05410	-.00023

(RF0049) (09 JUL 74)

GA119A 801C11F12H51W124E47V19R15X29

REFERENCE DATA

SREF = 2490.0100 SO.FT. XMRP = 1076.4800 INCHES
 LREF = 474.9100 INCHES YMRP = .0000 INCHES
 BREF = 936.8800 INCHES ZMRP = 375.0000 INCHES
 SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 80FLAP = .000
 ELEVON = 15.000 AIRCRW = .000
 RUDDER = .000 SPOBER = 25.000

RUN NO. 49/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CYN	CBL	CY	ACP/L	CAB
.260	-10.390	-.23590	.06650	-.09830	-.26380	.01970	-.00020	.00090	-.00100	.51500	.04334
.260	-8.230	-.14720	.04760	-.10060	-.19250	.02604	-.00040	.00170	.00000	.45900	.04969
.260	-6.100	-.03630	.03590	-.10370	-.03990	.03191	-.00070	.00100	.00000	-.32000	.04938
.260	-4.010	.06070	.03270	-.10800	.05830	.03696	-.00070	.00120	.00000	1.33300	.04941
.260	-1.870	.15670	.03490	-.10960	.15550	.04006	-.00070	.00150	.00100	.91100	.04919
.260	.210	.23090	.04100	-.11100	.23100	.04006	-.00080	.00150	.00200	.81400	.04765
.260	2.340	.34790	.05030	-.11230	.34970	.03613	-.00080	.00130	.00200	.77000	.04649
.260	4.440	.44320	.06230	-.11390	.44670	.02765	-.00090	.00100	.00300	.74500	.04640
.260	6.590	.53000	.08170	-.11910	.55580	.01797	-.00040	.00070	.00400	.73100	.04371
.260	8.700	.63920	.10360	-.12290	.66760	.00461	-.00070	.00040	.00400	.71900	.04594
.260	10.850	.77150	.13710	-.12670	.78350	-.01055	-.00040	.00020	.00500	.71100	.04715
.260	13.000	.88310	.17640	-.12740	.90010	-.02684	-.00090	.00060	.00600	.70400	.04114
.260	15.150	.99830	.22350	-.13180	1.02260	-.04326	-.00100	-.00010	.00700	.69900	.04564
.260	17.340	1.12170	.28750	-.13640	1.15640	-.06019	-.00090	-.00050	.00400	.69600	.05205
.260	19.460	1.21900	.35500	-.13660	1.26760	-.07137	.00020	.00010	.00700	.69100	.05424
.260	21.610	1.30390	.45260	-.14070	1.37900	-.05947	-.00010	.00010	.01000	.64900	.06041
.260	23.770	1.41980	.55570	-.15090	1.52330	-.06349	-.00250	-.00710	.02600	.64900	.06736
.260	25.870	1.49020	.63010	-.12530	1.57980	-.06581	-.00020	-.00040	.01400	.64100	.07206
GRADIENT		.04530	.00353	-.00069	.04600	-.00105	-.00002	-.00003	.00033	-.06246	-.00027

REPRODUCIBILITY OF THE
 ORIGINAL PAGE IS POOR

0A119A 861C11F12M51W124E48V19R13X29

(EF0030) (09 JUL 74)

REFERENCE DATA

3REF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6400 INCHES ZMRP = 373.0000 INCHES
SCALE = .0403 SCALE

BETA = .000 BDFLAP = .000
ELEVON = 15.000 ALLRON = .000
RUDDER = .000 SPDBRK = 25.000

PARAMETRIC DATA

RUN NO. 50/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYN	CBL	CT	XCP/L	CAB
.260	-10.380	-.24860	.06630	-.10070	-.23630	.02039	-.00030	.00090	-.00100	.50700	.04817
.260	-8.230	-.14000	.04780	-.10360	-.14340	.02732	-.00030	.00170	.00000	.36900	.04806
.260	-6.100	-.03010	.03490	-.10850	-.03360	.03135	-.00060	.00140	.00000	-.73400	.04941
.260	-3.990	.07040	.03220	-.11200	.08800	.03704	-.00080	.00110	.00100	1.25800	.04834
.260	-1.860	.16740	.03470	-.11390	.16610	.04017	-.00080	.00130	.00200	.90400	.04939
.260	.260	.26380	.04100	-.11340	.26400	.03992	-.00080	.00120	.00200	.41300	.04745
.260	2.360	.35760	.05000	-.11640	.35940	.03325	-.00100	.00120	.00300	.77100	.04728
.260	4.460	.45150	.06320	-.11720	.45300	.02792	-.00090	.00130	.00300	.74600	.04817
.260	6.590	.55220	.09080	-.11390	.53790	.01686	-.00100	.00110	.00400	.73100	.04623
.260	8.720	.65750	.10460	-.12110	.66370	.00370	-.00110	.00090	.00600	.71900	.04399
.260	10.980	.76370	.13630	-.12450	.76160	-.01135	-.00130	.00110	.00500	.71000	.04640
.260	13.040	.88210	.17610	-.12650	.89910	-.02749	-.00100	.00070	.00700	.70300	.04799
.260	15.160	.99750	.22470	-.12960	1.02150	-.04402	-.00090	-.00040	.00400	.69400	.04971
.260	17.340	1.11670	.28490	-.13390	1.15040	-.06090	-.00040	-.00060	.00400	.69500	.03204
.260	19.480	1.21790	.35210	-.13430	1.26360	-.07428	.00030	.00020	.00700	.69100	.05464
.260	21.640	1.31200	.43590	-.14330	1.39770	-.06003	.00040	.00030	.00400	.63000	.06131
.260	23.790	1.42170	.55570	-.15040	1.52500	-.06301	-.00260	-.00640	.02600	.64400	.06770
.260	25.880	1.45550	.63350	-.12700	1.54600	-.06557	-.00100	-.00270	.31700	.54100	.07223
GRADIENT		.04310	.00366	-.00061	.04540	-.00110	-.00002	.00001	.00024	-.35444	-.00029

0A119A 061C11F12M31W124E47V19R15X29

REFERENCE DATA

PARAMETRIC DATA

BREF = 2690.0100 SO.FT. XMRP = 1076.4800 INCHES

LREF = 474.8100 INCHES YMRP = .0000 INCHES

BREF = 936.8600 INCHES ZMRP = 375.0000 INCHES

BETA = .000

ELEVOM = 20.000

ATLRCH = .000

SPDBRK = 29.000

SCALE = .0409 SCALE

RUN NO. 51/ 0 RM/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00											
MACH	ALPHA	CL	COF	CLM	CN	CAF	CYN	CBL	CY	KCP/L	CAS
.260	-10.320	-.18060	.06690	-.13420	-.18970	.03347	-.00040	.00140	.00000	.39100	.03042
.260	-8.200	-.07820	.05170	-.13550	-.08470	.04004	-.00090	.00160	.00000	.06400	.03044
.260	-6.050	.02920	.04350	-.14030	.02440	.04641	-.00090	.00210	.00100	2.76300	.03019
.260	-3.940	.13380	.04240	-.14570	.13060	.05153	-.00130	.00150	.00200	1.06200	.03066
.260	-1.810	.23360	.04820	-.14950	.23190	.03560	-.00130	.00190	.00200	.88900	.03011
.260	.290	.31160	.05740	-.15310	.33190	.03569	-.00140	.00220	.00300	.92100	.04920
.260	2.410	.43060	.06960	-.15610	.43340	.03145	-.00140	.00270	.00300	.79400	.04967
.260	4.530	.52970	.08370	-.15950	.53490	.04357	-.00140	.00240	.00400	.76100	.04817
.260	6.690	.64630	.10910	-.16650	.65470	.03303	-.00130	.00240	.00400	.74600	.04409
.260	8.820	.75980	.13860	-.17490	.77210	.02049	-.00130	.00270	.00500	.73500	.04791
.260	10.980	.87040	.17420	-.17740	.86770	.00320	-.00120	.00140	.00600	.72500	.04472
.260	13.100	.98140	.21740	-.17960	1.00510	-.01076	-.00190	.00170	.00900	.71700	.04964
.260	15.270	1.09710	.27040	-.18360	1.12960	-.02819	-.00190	.00030	.01000	.71100	.03243
.260	17.420	1.20670	.33170	-.18440	1.25070	-.04493	-.00140	.00010	.01000	.70600	.03432
.260	19.540	1.29480	.40380	-.18010	1.35550	-.05274	-.00120	-.00020	.01000	.70100	.03719
.260	21.640	1.37690	.50760	-.18520	1.46710	-.03710	-.00130	-.00150	.01300	.69400	.06416
.260	23.690	1.46240	.60900	-.18960	1.60200	-.04244	-.00280	-.00930	.02400	.69500	.07035
.260	25.930	1.49410	.67240	-.15390	1.63770	-.04970	-.00010	.00590	.00600	.64600	.07526
GRADIENT	.04674	.00510	.00162	-.00162	.04774	-.00095	-.00091	.00012	.00024	-.03342	-.00030

C01119A 861C11F12M51W124E48V1915129

(RF0052) (09 JUL 74)

REFERENCE DATA

SREF = 2690.0100 90.FT. YMRP = 1076.4000 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6000 INCHES ZMRP = 375.0000 INCHES
SCALE = .0403 SCALE

BETA =
ELEVGM =
RUDDER =

.000 90FLAP = .000
20.000 AILRGM = .000
.000 SPDRK = 29.000

PARAMETRIC DATA

RUN NO. 52/ 0 RN/L = 1.85 GRADIENT INTERVAL = -.600/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CTM	CBL	CY	XCP/L	CAS
.260	-10.270	-.16000	.06310	-.14230	-.16870	.03363	-.00010	.00190	-.00200	.34100	.05941
.260	-8.130	-.03340	.04750	-.14530	-.05960	.03932	-.00050	.00260	-.00100	-.24500	.05123
.260	-5.990	.05330	.04060	-.15010	.03080	.04620	-.00010	.00260	-.00100	1.73900	.05064
.260	-3.850	.13610	.04090	-.15410	.15300	.05136	-.00070	.00210	.00000	1.02200	.05063
.260	-1.770	.25080	.04700	-.15570	.24930	.05476	-.00070	.00220	.00000	.98100	.05002
.260	.340	.34330	.05350	-.15630	.34360	.05334	-.00070	.00220	.00000	.81900	.04937
.260	2.430	.43480	.06770	-.15610	.43730	.04906	-.00040	.00250	.00100	.74300	.04876
.260	4.370	.52880	.08430	-.15760	.53390	.04182	-.00100	.00270	.00200	.76000	.04844
.260	6.700	.63000	.10370	-.16080	.63890	.03136	-.00090	.00300	.00200	.74400	.04735
.260	8.830	.74540	.13370	-.16900	.73710	.01767	-.00090	.00290	.00300	.73300	.04469
.260	10.960	.86360	.17070	-.17430	.88030	.00311	-.00100	.00240	.00400	.72500	.04497
.260	13.140	.97300	.21410	-.17540	.99620	-.01262	-.00100	.00220	.00500	.71600	.04959
.260	15.290	1.08660	.26600	-.17840	1.11630	-.02290	-.00130	.00220	.00700	.71000	.05232
.260	17.430	1.19930	.32670	-.18080	1.24210	-.04755	-.00070	.00040	.00600	.70500	.05495
.260	19.570	1.26780	.39880	-.17590	1.34700	-.05558	-.00030	.00020	.00700	.70000	.05736
.260	21.740	1.36670	.50790	-.18630	1.47610	-.04200	-.00140	-.00020	.01200	.69400	.06420
.260	23.990	1.49380	.61120	-.19210	1.61340	-.04624	-.00340	-.01010	.02900	.69300	.07010
.260	26.000	1.53650	.69270	-.17960	1.68470	-.05117	.00260	.01350	-.01000	.64900	.07469
GRADIENT		.04466	.00416	-.00060	.04556	-.00041	-.00007	.00001	.00024	-.07694	-.00023

GALL19A 861C11F12M51W124E31V19R13X20

REFERENCE DATA

SREF = 2690.0100 SQ.FT. XMRP = 1076.4800 INCHES
LREF = 474.0100 INCHES YMRP = .0000 INCHES
BREF = 936.0000 INCHES ZMRP = 379.0000 INCHES
SCALE = .0400 SCALE

PARAMETRIC DATA

BETA = .000 80FLAP = .300
ELEVOM = 20.000 AIRCOM = .000
RUDDER = .000 SPODER = 25.000

RUN NO. 94/ 0 RW/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CTM	CBL	CY	XCP/L	CAB
.260	-10.260	-.17720	.06680	-.13530	-.18630	.03416	-.00010	.00140	-.00200	.39400	.05012
.260	-8.150	-.06740	.05080	-.13930	-.07390	.04073	-.00030	.00200	.00000	-.04100	.05071
.260	-5.990	.04420	.04300	-.14610	.03950	.04743	-.00010	.00210	.00000	2.01200	.05026
.260	-3.890	.14280	.04340	-.14990	.13960	.05375	-.00070	.00150	.00000	1.04700	.05027
.260	-1.760	.24020	.04910	-.15280	.23660	.05655	-.00090	.00140	.00100	.98700	.04967
.260	.340	.33310	.05780	-.15420	.33350	.05586	-.00080	.00190	.00100	.82200	.04945
.260	2.440	.42620	.06930	-.15540	.43070	.05125	-.00090	.00210	.00100	.78400	.04899
.260	4.570	.52560	.08370	-.13790	.53080	.04353	-.00100	.00190	.00200	.76100	.04943
.260	6.660	.63180	.10660	-.16230	.63990	.03226	-.00130	.00030	.00500	.74500	.04791
.260	8.820	.74330	.13520	-.16860	.75520	.01965	-.00130	.00090	.00500	.73400	.04930
.260	10.960	.85240	.17070	-.17150	.86930	.00339	-.00140	.00120	.00600	.72400	.04952
.260	13.130	.97070	.21600	-.17670	.99440	-.01032	-.00140	.00140	.00600	.71700	.05040
.260	15.280	1.08640	.27050	-.18140	1.11920	-.02553	-.00150	.00100	.00700	.71100	.05272
.260	17.420	1.19390	.33260	-.18320	1.23870	-.04015	-.00170	.00000	.01000	.70600	.05446
.260	19.550	1.28050	.40140	-.17730	1.34100	-.05029	-.00090	-.00040	.00900	.70000	.05732
.260	21.680	1.36060	.50130	-.18030	1.44960	-.03694	-.00020	-.00110	.01000	.69700	.06473
.260	23.860	1.43960	.60120	-.18260	1.57610	-.04042	-.00250	-.00090	.02900	.69400	.07032
.260	25.900	1.44520	.65190	-.13720	1.58480	-.04507	-.00070	.00070	.01300	.69400	.07597
GRADIENT		.04542	.00437	-.00104	.04635	-.00035	-.00007	.00002	.00019	-.09614	-.00019

REPRODUCTION OF THE
ORIGINAL PAGE IS POOR

CA119A 861C11F12431U124E48V19R1320 (RF0033) (25 JUL 74)

REFERENCE DATA

WREF = 2000.0100 SO.FT. XMRP = 1076.4800 INCHES
LREF = 474.8100 INCHES YMRP = .0000 INCHES
BREF = 936.6000 INCHES ZMRP = 375.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 90FLAP = -12.000
ELEVGM = .000 AILEGM = .000
RUDDER = .000 SPDRK = 23.000

% INCHES 55/ 0 RM/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00											
MACN	ALPHA	CL	COF	CLM	CM	CAF	CYN	CBL	CY	XCP/L	CAB
.260	-10.600	-.57390	.11240	.05160	-.58480	.00407	-.00020	.00070	-.00200	.68400	.04449
.260	-8.540	-.46480	.07980	.04910	-.47130	.00992	-.00010	.00070	-.00100	.69000	.04475
.260	-6.390	-.35630	.05320	.04670	-.36030	.01320	-.00010	.00060	-.00100	.69500	.04408
.260	-4.290	-.23430	.03920	.04420	-.23630	.02522	.00020	.00090	-.00200	.71300	.04395
.260	-2.160	-.15430	.03070	.04220	-.15340	.02483	-.00060	.00030	.00000	.73200	.04298
.260	-.070	-.06040	.02620	.04120	-.06040	.02614	-.00060	.00030	.00000	.90300	.04297
.260	2.060	.03720	.02520	.04090	.03810	.02394	-.00060	.00030	.00100	.23700	.04290
.260	4.170	.13350	.02760	.04040	.13510	.01789	-.00060	.00060	.00100	.34200	.04228
.260	6.310	.23340	.03380	.03920	.23570	.00798	-.00090	.00030	.00300	.59000	.04173
.260	8.430	.33710	.04490	.03840	.34010	-.00492	-.00070	.00030	.00300	.61000	.04194
.260	10.550	.43630	.06130	.04130	.44020	-.01940	-.00090	.00030	.00400	.61700	.04230
.260	12.760	.54800	.08730	.04300	.55180	-.03327	-.00090	.00030	.00500	.62300	.04329
.260	14.850	.65770	.12070	.04030	.66670	-.05192	-.00090	.00030	.00600	.62900	.04319
.260	16.990	.78350	.16810	.03110	.80040	-.06883	-.00130	.00060	.00400	.63700	.04674
.260	19.130	.90360	.22320	.02870	.92960	-.08437	-.00090	-.00030	.01000	.64100	.04932
.260	21.320	1.01310	.29310	.02390	1.05030	-.09328	.00010	-.00010	.00900	.64300	.05204
.260	23.480	1.11320	.39130	.00730	1.19320	-.09260	.00090	.00040	.01000	.64900	.05764
.260	25.590	1.17430	.46360	.02190	1.26930	-.09162	.00020	.00160	.01200	.64300	.06174
GRADIENT		.04375	-.00136	-.00042	.04620	-.00023	-.00099	-.00003	.00033	-.03946	-.00016

DATE 22 OCT 74 TABULATED SOURCE DATA - GALL19A

(REF036) (09 JUL 74)

GALL19A 861C11F12M51W124E48V19R13R29

PARAMETRIC DATA

REFERENCE DATA

REF = 2690.0100 SQ.FT. ZMRP = 1076.4800 INCHES
LREF = 474.0100 INCHES YMRP = .0000 INCHES
BREF = 936.6800 INCHES ZMRP = 373.0000 INCHES
SCALE = .0403 SCALE

BETA = .000
ELEVOM = 15.00
RUDDER = .000

BDFLAP = -12.000
AILRCM = .000
SPDBRK = 25.000

RUN NO. 56/ 0 RN/L = 1.85 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CDF	CLM	CM	CAF	CYN	COL	CY	KCP/L	CAB
.260	-10.390	-.26930	.07210	-.06730	-.27810	.02231	-.00030	.00080	-.00100	.33600	.03245
.260	-8.230	-.15890	.04210	-.09070	-.16480	.02996	-.00060	.00130	.00000	.44900	.03298
.260	-6.080	-.04810	.03920	-.04970	-.03280	.03393	-.00070	.00120	.00000	-.02400	.03315
.260	-3.980	.03170	.03390	-.09690	.04910	.03944	-.00090	.00040	.00100	1.39390	.03309
.260	-1.860	.14580	.03750	-.10030	.14430	.04231	-.00110	.00100	.00100	.93700	.03264
.260	.230	.24110	.04240	-.10120	.24130	.04136	-.00110	.03940	.00200	.93600	.03279
.260	2.350	.33330	.05200	-.10090	.33310	.03926	-.00130	.00070	.00300	.76300	.03039
.260	4.460	.42940	.06310	-.10110	.42900	.02987	-.00150	.00030	.00400	.73900	.03024
.260	6.610	.53120	.06070	-.10320	.53700	.01906	-.00130	.00090	.00300	.72400	.04974
.260	8.720	.63690	.10380	-.10750	.64330	.00399	-.00120	.00090	.00300	.71300	.04934
.260	10.890	.74860	.13440	-.11060	.74030	-.00941	-.00120	.00040	.00600	.70300	.03942
.260	13.030	.86030	.17390	-.11330	.87740	-.02462	-.00130	.00040	.00700	.69900	.03107
.260	15.180	.97920	.22240	-.11840	1.00330	-.04179	-.00110	.00090	.00600	.69300	.03314
.260	17.330	1.09750	.28090	-.12320	1.13130	-.05896	-.00120	-.00030	.00400	.69200	.03350
.260	19.470	1.19770	.34800	-.12220	1.24320	-.07126	.00090	.00070	.00400	.69400	.03742
.260	21.610	1.29070	.44840	-.13040	1.36310	-.05861	.00070	.00070	.00400	.69700	.06351
.260	23.810	1.40320	.54990	-.13790	1.50360	-.06339	-.00220	-.00040	.00600	.67500	.07503
.260	25.880	1.42280	.61890	-.10650	1.59020	-.06426	-.00020	-.00090	.01400	.67700	.07419
	GRADIENT	.04433	.00327	-.00024	.04506	-.00110	-.00007	-.00004	.00039	-.06900	-.00034

REPRODUCIBILITY OF THIS
PAGE IS POOR

C-119A 061C11F12N15W124C40V10R13R20

(18F0339) (09 JUL 74)

REFERENCE DATA

SRF = 2000.0100 36. FT. LMRP = 1076.4000 INCHES
LREF = 474.0100 INCHES TMRP = .0000 INCHES
SRF = 936.0000 INCHES ZMRP = 379.0000 INCHES
SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = .000 BDFLAP = .000
ELEVOM = 20.000 ALLROM = .000
RUDDER = .000 SPDGRK = 25.000

RUN NO. 59/ 0 RM/L = 1.95 GRADIENT INTERVAL = -0.00/ 0.00

MACH	ALPHA	CL	CDP	CLM	CM	CAP	CYM	CBL	CY	XCP/L	CAP
.200	-10.290	-.16000	.04300	-.14170	-.15930	.03327	-.00050	.00030	.00200	.34400	.04961
.200	-8.150	-.05100	.04770	-.14550	-.03010	.03992	-.00000	.00130	.00000	-.26900	.05010
.200	-6.000	.03750	.04030	-.15160	.03290	.04610	-.00060	.03140	.00200	1.70500	.04996
.200	-3.900	.15900	.04030	-.15560	.13590	.05108	-.00110	.00060	.00200	1.01900	.05037
.200	-1.790	.25340	.04640	-.15770	.25100	.05434	-.00120	.00070	.00200	.94200	.04970
.200	.330	.34700	.05540	-.15910	.34610	.05349	-.00130	.00060	.00300	.92000	.04915
.200	2.440	.43920	.06750	-.15890	.44170	.04874	-.00130	.00070	.00300	.79400	.04926
.200	4.530	.53650	.08340	-.16200	.54150	.04077	-.00130	.00060	.00400	.76200	.04922
.200	6.670	.64170	.10500	-.16630	.64960	.02975	-.00130	.00060	.00500	.74600	.04777
.200	8.830	.75980	.13450	-.17440	.77150	.01623	-.00130	.00060	.00600	.73500	.04912
.200	10.970	.86980	.17060	-.17740	.86630	.00196	-.00140	.00040	.00700	.72500	.04440
.200	13.100	.97960	.21460	-.18000	1.00270	-.01306	-.00120	-.00060	.00700	.71400	.04931
.200	15.270	1.09600	.26830	-.18330	1.12000	-.02994	-.00120	-.00070	.00400	.71100	.05167
.200	17.430	1.20460	.33010	-.18460	1.24920	-.04594	-.00110	-.00110	.01000	.70600	.05424
.200	19.570	1.29370	.40300	-.18020	1.35400	-.05364	-.00070	-.00060	.00900	.70100	.05712
.200	21.720	1.39510	.51240	-.19290	1.44560	-.04046	-.00040	-.00110	.01200	.69900	.06425
.200	23.990	1.50480	.61600	-.19910	1.62530	-.04625	-.00220	-.00490	.02700	.69700	.06944
.200	25.930	1.50190	.67630	-.15920	1.64640	-.04967	-.00000	.00220	.01100	.69700	.07517
GRADIENT		.04513	.00415	-.00046	.04605	-.00047	-.00006	-.00005	.00033	-.07424	-.00021

C4119A 861C11F12H51W124E48V19H15Z29

(RFE061) (09 JUL 74)

REFERENCE DATA

QREF = 2890.0100 SQ.FT. WREF = 1076.4890 INCHES
LREF = 474.0100 INCHES YREF = .0000 INCHES
BREF = 936.0000 INCHES ZREF = 373.0000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 SDFLAP = .000
ELEVGM = 13.000 AILRCM = .000
RUDDER = .000 SPOBRK = 43.000

RUN NO. 61/ 0 RW/L = 1.05 GRADIENT INTERVAL = -6.00/ 6.00

MACH	ALPHA	CL	CD	CLM	CN	CAF	CYM	CBL	CT	KCP/L	CAS
.200	-10.400	-.23610	.06750	-.09910	-.26400	.02015	-.00070	.00040	.00000	.51400	.04764
.200	-8.270	-.14720	.04000	-.10220	-.19270	.02717	-.00090	.00120	.00000	.40300	.04731
.200	-6.140	-.03760	.03630	-.10700	-.04130	.03206	-.00120	.00110	.00100	-.30000	.04434
.200	-4.000	.06330	.03320	-.11050	.06000	.03761	-.00160	.00030	.00300	1.32000	.04769
.200	-1.870	.13990	.03580	-.11230	.13060	.04104	-.00190	.00030	.00400	.91300	.04771
.200	.220	.23380	.04160	-.11370	.29390	.04062	-.00190	.00030	.00300	.91600	.04717
.200	2.320	.34930	.04900	-.11490	.35100	.03562	-.00190	.00030	.00300	.77200	.04709
.200	4.470	.44000	.06260	-.11590	.44930	.02772	-.00170	.00030	.00300	.74700	.04626
.200	6.590	.53170	.08130	-.11990	.55730	.01735	-.00160	.00030	.00600	.73100	.04317
.200	8.720	.63000	.10450	-.12340	.66700	.00352	-.00130	.00030	.00600	.72000	.04377
.200	10.850	.76790	.13370	-.12550	.77970	-.01137	-.00160	.00030	.00700	.71100	.04641
.200	12.990	.87630	.17460	-.12770	.89310	-.02743	-.00160	.00030	.00700	.70400	.04743
.200	15.170	.99960	.22330	-.13300	1.02300	-.04401	-.00130	.00020	.00700	.69900	.04369
.200	17.320	1.11630	.28310	-.13740	1.15060	-.06024	-.00110	-.00010	.00900	.69600	.03160
.200	19.460	1.21390	.35280	-.13620	1.26490	-.07231	-.00020	.00020	.00700	.69100	.03410
.200	21.670	1.31350	.43730	-.14310	1.36930	-.06016	.00030	.00030	.00600	.69000	.06141
.200	23.900	1.42000	.56000	-.15540	1.53360	-.06346	-.00210	-.00030	.02400	.64900	.06690
.200	25.900	1.43360	.63330	-.12700	1.50440	-.06507	-.00010	.00230	.01100	.64100	.07132
.160	GRADIENT	.04319	.00345	-.00062	.04390	-.00119	-.00001	-.00006	.00024	-.06090	-.00017